PSYCHIATRIC HISTORY

and

PERCEPTIONS OF FAMILY OF ORIGIN

in

WOMEN WITH BINGE EATING DISORDER:

A Controlled Community Study.

A thesis
submitted in partial fulfilment
of the requirements for the degree
of
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by

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ABSTRACT

The eating disorder Binge Eating Disorder (BED) is closely related to Bulimia Nervosa (BN), the essential difference being the absence of purging behaviours in BED. There is accumulating evidence that BED is a relatively common disorder, and is associated with elevated rates of other psychopathology. Yet there is poor provision for classifying individuals with BED in the existing psychiatric nomenclature.

Much existing research on BED uses subjects in treatment for obesity, and most community studies have used questionnaires to diagnose BED. Thus there exists an urgent need for studies using community samples, that utilise reliable clinical interviews.

In the present controlled community study, rates of psychiatric disorders in 20 women who fulfilled DSM-IV research criteria for BED were investigated, using a structured diagnostic interview. Subjects' childhood family environments were also examined. The existing literature suggests that women with BN experienced more dysfunctional family environments during childhood, compared both to controls and to women with Anorexia Nervosa. It was thus an interesting empirical question whether women with BED would also describe their childhood family environments as more dysfunctional than controls.

In the present study women with BED were found to have significantly higher lifetime rates of affective and anxiety disorders. Of interest was the high rates of major depression found in both the BED and control groups in this study. Possible factors accounting for this finding are discussed. In addition, BED was more frequently reported present in the first degree relatives of BED probands. Furthermore, women with BED tended to perceive both their parents as having been significantly less caring and more controlling, and described their childhood family environments more negatively, compared to controls. Finally, women with BED reported significantly lower levels of self-esteem. These results, and the relationship between BED and the non-purging subtype of BN, are discussed with reference to the literature.

CHAPTER 1- INTRODUCTION

1.1 CLASSIFICATION OF EATING DISORDERS

1.1.1 Brief History of the Classification of Binge Eating

Classification of binge eating as an abnormal behaviour first occurred with publication of the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) in 1980, and was termed bulimia (American Psychiatric Association, 1980). However with publication of the Diagnostic and Statistical Manual of Mental Disorders, Third Edition-Revised (DSM-III-R) in 1987, the name of the disorder was changed to bulimia nervosa (BN), and the criteria were amended to include purging behaviours (American Psychiatric Association, 1987). The diagnosis now required that bingeing be associated with inappropriate compensatory behaviour to prevent weight gain.

Thus since 1987 there has been no specific provision in the official nomenclature for binge eating that is **not** followed by compensatory behaviour. This is viewed as a deficiency in the classification of eating disorders by many workers in the field, whose clinical observations are that there exist a number of individuals with a serious overeating problem associated with significant distress and/or impairment (Devlin, Walsh, Spitzer, & Hasin, 1992).

1.1.2 Current Status of Binge Eating Disorder

Binge eating disorder (BED) is not a diagnosable disorder, but is included in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), in the section, 'Criteria Sets and Axes Provided for Future Study' (American Psychiatric Association, 1994). The eating disorders section of the DSM-IV contains three diagnoses; anorexia nervosa, bulimia nervosa, and eating disorder not otherwise specified. At present a person with binge eating disorder is classified using this latter diagnosis.

The essential characteristics of BED are recurrent binge eating accompanied by distress, but the absence of compensatory behaviours such as fasting, excessive exercise, or vomiting, that are part of the clinical picture of BN. The definition of binge eating emphasises both the quantity of food consumed, and a sense of loss of control during the binge. The research criteria for BED provided in the DSM-IV are reproduced overleaf:

Research Criteria for Binge Eating Disorder

A. Recurrent episodes of binge eating. An episode of binge eating is characterised by both of the following:

(1) eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat in a similar period of time under similar circumstances.

(2) a sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).

B. The binge eating episodes are associated with three (or more) of the following:

(1) eating much more rapidly than normal.
(2) eating until feeling uncomfortably full.
(3) eating large amounts of food when not feeling physically hungry.
(4) eating alone because of being embarrassed by how much one is eating.
(5) feeling disgusted with oneself, depressed, or very guilty after overeating.

C. Marked distress over binge eating is present.

D. The binge eating occurs, on average, at least 2 days a week for 6 months.

Note: The method of determining frequency differs from that used for Bulimia Nervosa; future research should address whether the preferred method of setting a frequency threshold is counting the number of days on which binges occur or counting the number of episodes of binge eating.

E. The binge eating is not associated with the regular use of inappropriate compensatory behaviours (e.g. purging, fasting, excessive exercise) and does not occur exclusively during the course of Anorexia Nervosa or Bulimia Nervosa.

1.1.3 Discussion of the BED Criteria

Defining a Binge

The term binge refers to a particular form of overeating that is distinguished from normal overeating by dyscontrol. The definition offered by the American Psychiatric Association has changed over several revisions. The DSM-III and DSM-III-R definitions emphasised the quantity of food eaten in a discrete period of time. In addition the DSM-IV requires a sense of loss of control over eating to be present, in order for an episode of overeating to be described as a binge. Inclusion of this second factor is a major change from the DSM-III-R, which included a sense of loss of control over eating in the diagnostic criteria for BN, but it was not part of the definition of a binge.

Although part of the diagnostic criteria, there is little evidence that the quantity of food consumed during an eating binge is significant diagnostically (Fairburn & Wilson, 1993). There is however consensus over the importance of loss of control as a necessary feature. Although DSM-III and DSM-III-R specified the rapid consumption of food as a necessary condition of a binge, this requirement has been dropped from the DSM-IV, as speed of eating is no longer thought to be central to the binge construct.

As is reflected in the evolution of the DSM definition of binge eating, there has historically been considerable disagreement amongst eating disorder researchers as to which types of eating behaviour constitute binge eating. As a result, a multiplicity of definitions have been used in studies investigating binge eating. Thus the definition employed in a particular study must be taken into account when

interpreting research findings. In particular, authors who recommend emphasis on lack of control rather than quantity of food eaten in defining binge eating, may include subjective binges (see below) in their definition of a binge eating episode (de Zwaan & Mitchell, 1992).

The distinction between subjective and objective binges is made in the Eating Disorders Examination, a widely used measure of eating disordered attitudes and behaviour (Fairburn & Cooper, 1993). Four forms of overeating are described, that can be conceptualised as a quadrant (See Figure One). One axis is divided according to whether the amount of food consumed is clearly excessive or not. The other axis is divided according to whether or not the individual experiences a sense of loss of control during the eating episode.

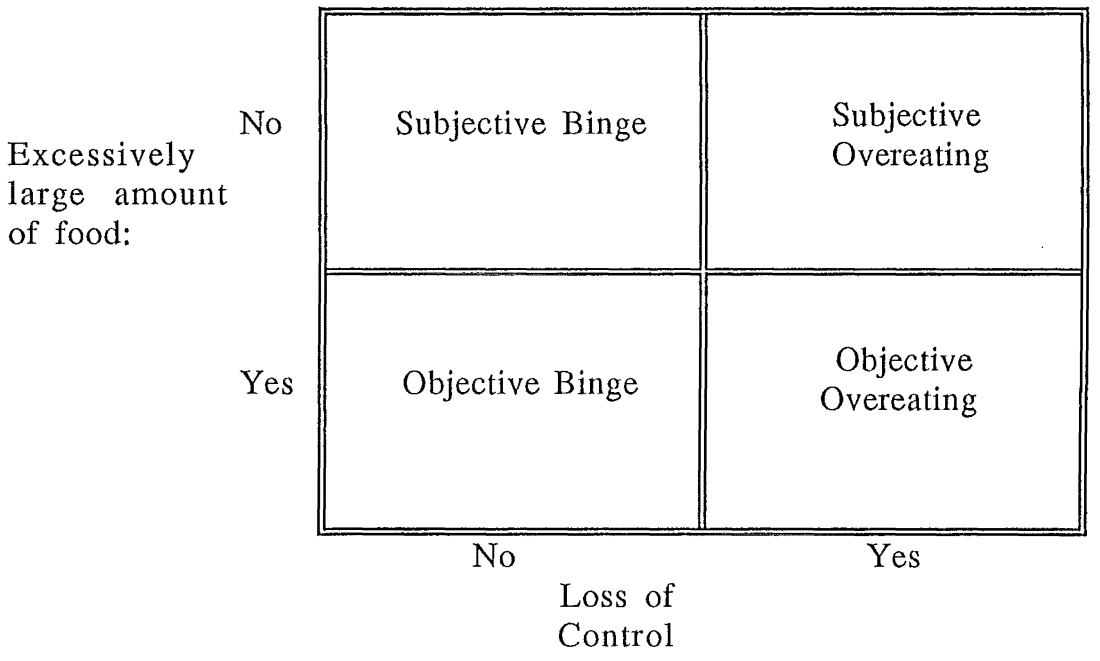

Figure One: Four Types of Overeating Conceptualised as a Quadrant (from Fairburn & Cooper, 1993)

Thus objective overeating involves an objectively large amount of food but no dyscontrol, whereas an objective binge involves an objectively large amount of food, with accompanying dyscontrol. Subjective overeating involves neither an excessive amount of food or a feeling of loss of control, whereas a subjective binge occurs when an objectively small or normal amount of food is consumed, but the individual experiences their eating as being out of control, or feels they have violated a self-imposed dietary rule (Beglin & Fairburn, 1992).

Therefore according to the DSM-IV classification, only objective binges are relevant to the criteria for a binge eating episode, since only they include the two necessary features of dyscontrol and consuming an excessively large amount of food. Before introduction of the revised DSM-IV definition of binge eating, objective overeating could have been diagnostically relevant, as dyscontrol was not a necessary condition. However subjective binges have never been diagnostically relevant according to the DSM, since the criteria for a binge has always required consumption of a large amount of food.

Frequency Criteria

The DSM-IV research criteria for BED calculates the frequency of binge eating episodes based on the number of days per week on which bingeing occurs. This differs from the method used for BN (number of discrete episodes of binge eating), because in BED it is often unclear when a discrete episode of bingeing begins and ends. The presence of compensatory behaviours in BN allow this distinction to be made much more easily.

The required frequency of two binge eating episodes per week has been criticised as being arbitrary; it has been argued that there may be no difference in the clinical features of patients who binge eat once or twice a week (de Zwaan, Mitchell, Raymond, & Spitzer, In press). While the required frequency is certainly arbitrary, operationalised diagnostic criteria require that a line must be drawn somewhere. Whether a frequency of twice a week is too stringent a place to draw this line is a question that can only be answered by future research.

Loss of Control Requirement

Loss of control is considered present if a person has difficulty either in preventing an episode of overeating from starting, or in stopping it once it has begun. Loss of control has in recent years come to be recognised by theoreticians as essential to the binge eating construct. Beglin & Fairburn (1992) have demonstrated that laypeople also view loss of control as an essential element of binge eating. Their subjects placed greater emphasis on loss of control, than on the quantity eaten, when asked to classify recent overeating episodes as binges or not. A binge is still also defined in DSM-IV in terms of the amount of food consumed, although this aspect may be less important to laypeople.

Distress Requirement

The distress criterion serves to eliminate false positives. In Spitzer, Devlin, Walsh, Hasin, Wing & Marcus et al.'s (1992) multisite field trial, exclusion of this criterion would have more than doubled the number of positive cases in the community sample (de Zwaan, et al., In press).

It is noteworthy that unlike the criteria for BN, the BED criteria do not require that the individual's self-evaluation be unduly influenced by body shape and weight. There is evidence that although women with BED are dissatisfied with their weight, this is realistic in view of their actual size. Their ideal body size is also realistic, in contrast to the obsession with thinness and extremely thin ideal body size found in samples of women with BN (Williamson, Gleaves & Savin, 1992).

Reliability and Validity

Brody, Walsh, & Devlin (1994) examined the reliability and validity of the BED criteria, and found that while assessments of loss of control and distress were very reliable, the quantity of food consumed during a binge, and the frequency of binges were assessed less reliably. This study is limited by the fact that only mildly obese binge eaters were included in the sample, and as the authors acknowledge, there may be important differences in the clinical picture of individuals at different points on the obesity continuum.

1.1.4 Debate Over the Inclusion of BED in the DSM-IV

In 1991 Spitzer, Devlin, Walsh, Hasin, Wing, Marcus, et al. argued for the inclusion of BED in the 4th revision of the DSM, then under preparation, either in the Eating Disorders section or in the section 'Criteria Sets and Axes Provided for Further Study'. They argued that the binge eating subgroup of the obese population has more psychopathology, more severe obesity, and earlier relapse following weight loss, than non-binge eating obese individuals (Spitzer et al.,

1991). It was hoped that a new diagnostic category would promote research and development of effective treatments for this problem.

Fairburn, Welch, & Hay (1993) however argued against the addition of Binge Eating Disorder to the Eating Disorders Section of the DSM-IV, as they felt that focusing prematurely on one very specific group amongst overeaters generally, may impede rather than facilitate acquisition of knowledge. They argued that too little was known about binge eating and other forms of recurrent overeating to justify their inclusion in the DSM-IV: cutting the cake one way will give a narrow focus to research, and prevent identification of better methods of classification. Secondly they argued that the inclusion of BED would cause diagnostic confusion, especially in distinguishing it from the non-purging subtype of BN.[1] Fairburn et al. (1993) also argued that the proposed diagnosis did not meet standards required for a new diagnostic category, in terms of existing knowledge of clinical features, or prediction of course, outcome, and response to treatment.

In reply Spitzer, Stunkard, Yanovski, Marcus, Wadden, Wing, et al. (1993a) convincingly argued that BED meets any reasonable standard that can be proposed for adding a new category to the DSM-IV. They argued that there is research available on the clinical features of BED, including its association with an early onset of obesity and dieting, and a history of weight fluctuations. In addition consideration of BED status is helpful in predicting outcome of weight loss treatment. Preliminary results suggest that

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[1] The DSM-IV introduced into the BN diagnostic criteria the distinction between purging and non-purging types. The purging type requires regular purgation by vomiting, or by the misuse of laxatives, diuretics or enemas. The non-purging type includes other inappropriate compensatory behaviours, such as fasting or excessive exercise, but excludes regular purgation by vomiting, or by the misuse of laxatives, diuretics or enemas.

behavioural treatment focusing on perception, emotional expression, social skills and eating behaviour, rather than dieting, may be effective in treating BED (Fichter, Quadflieg, & Brandl, 1993).

However Fichter et al. (1993) recommended that BED not be included in the DSM-IV, because existing data did not provide sufficient evidence to support its inclusion. These authors argued that there is strong evidence for a continuum of severity with respect to the behavioural and attitudinal parameters of binge eating, as well as the degree of psychopathology, rather than for a dichotomy of binge eaters vs non-binge eaters.

In summary, while there is clearly a need for the development of criteria for binge eating in the absence of regular compensatory behaviours, we may not know enough yet to make the right classificatory decisions. On the other hand there is accumulating evidence that binge-eaters are distinguishable from other recurrent overeaters in the level of distress they experience over their eating, and by the increased likelihood of other psychiatric disturbance. The specific recognition of this behaviour pattern in the diagnostic system will help stimulate research to increase knowledge of this disorder, which will inform the development of treatment services for this group. The final decision to include BED in the section 'Criteria Sets and Axes Provided for Further Study' seems a good compromise between all these issues.

1.2 BED: WHAT WE KNOW NOW

1.2.1 Introduction

A binge eating syndrome in humans was first described by Stunkard in 1959. He described three abnormal eating patterns; night eating, binge eating and eating without satiation. Binge eating is distinguished from the other two patterns by the personal meaning or symbolic representation that the eating pattern has for the individual, and by the presence of self-condemnation over the eating (ibid).

BED is a significant problem for its sufferers. Individuals with BED are more likely than non-binge eaters to experience impairment in work and social functioning, be overconcerned with body shape and weight, to spend a significant portion of their adult life on diets, to have a history of depression or alcohol/drug abuse, and to have a history of treatment for emotional problems (de Zwaan et al., In press).

1.2.2 Epidemiology

The prevalence of BED has been found to be as high as 30% in hospital-affiliated weight control programmes, although in the general community its prevalence is estimated at 2% (Spitzer et al., 1992). A similar figure (1.8%) was found by Bruce & Agras (1992) in a telephone survey of 455 women. Thus binge eaters are overrepresented in weight control programmes, and a significant minority of participants in weight loss programmes (18-46%) will

have significant binge eating problems (de Zwaan et al., In press). The prevalence of BED is clearly higher than that of purging BN.

Three studies, including Spitzer et al.'s (1992, 1993b) large multisite study, have found no significant differences in the prevalence of BED among racial groups, while one study found a higher rate of BED among Caucasian as opposed to non-Caucasian subjects (de Zwaan et al., In press).

BED was only slightly more common in female than male subjects in weight control programmes, and equally common in both males and females in a large community sample (Spitzer, Yanovski, Wadden, Wing, Marcus, Stunkard, et al., 1993b). This is in marked contrast to the large predominance of women in both bulimia nervosa and anorexia nervosa (Wilson, 1993). However the majority of BED studies have used only women as subjects, while others have included a small number of males, and have not carried out separate analyses. Thus the literature on BED cannot be generalised to males.

Obese subjects with BED also appear to be significantly younger than non-binge eating obese, especially when the sample is obtained from obesity treatment programmes. On the other hand, BED subjects tend to be older than purging bulimic subjects (de Zwaan et al., In press).

1.2.3 Relationship between BED and Obesity

> "For if one did not feel obliged to find common features in every case of obesity, but could restrict one's efforts to members of subgroups of obese persons, it should increase the likelihood of discovering common and distinctive psychological features".
>
> (Stunkard, 1959)

Stunkard argues above for the utility in considering obesity, not as one disease, but as the end stage of a variety of different conditions with differing etiologies. It is now more widely recognised than at the time Stunkard was writing, that obesity is a disease with multiple causes. A subset of the obese population may be obese as a result of binge eating, but community studies have demonstrated that the proportion of obese who also have BED is small. Similarly, there is a subgroup of people with BED who are able to maintain their weight within the normal range.

Obesity is not caused simply by eating too much, and nor is it true that normal weight people do not overeat. Research on food intake and weight has repeatedly shown that caloric intake is uncorrelated or negatively correlated with weight (Wardle, 1987). The concept of **dietary restraint** however seems to be important in explaining why people gain weight. It is argued that conscious attempts to restrain eating, in order to achieve a socioculturally prescribed thin ideal, result in the activation of biologically derived adaptations, such as reduced activity level, and increased hunger and food preoccupation, that tend to facilitate weight gain (ibid). In support of this argument is the finding that obese binge eaters, compared to non-binge eating obese, tend to attain higher scores on measures of dietary restraint (Marcus & Wing, 1987). Thus the available

evidence strongly implicates dieting, rather than overeating, in the pathogenesis of obesity.

The cognitive changes produced by dietary restraint are important to an understanding of dieting behaviour, yet little research has been conducted in this area. Phenomena such as 'forbidden fruit', which refers to the enhanced attractiveness of prohibited food, have been used to explain the dietary restrainer's increased appetite, and increased food intake during periods of disinhibition (ibid). A second useful concept is one that has also proved very useful in the treatment of addictive behaviours: the abstinence violation effect (Marlatt & Gordon, 1980). This occurs particularly in people who are perfectionistic and set very high and rigid standards for themselves. These are characteristics that have been found frequently in people with BED and BN (Polivy & Herman, 1993; de Zwaan, Mitchell, Seim, Specker, Pyle, Raymond & Crosby, 1994; Bulik, 1994).

The abstinence violation effect (AVE) explains the disinhibition and abandonment of strict dietary restraint that occurs when a slight transgression of a self-imposed dietary rule is made. For example, the AVE is operating when a person, after eating one or two biscuits, is disgusted that they have blown their diet, and decides that they might as well eat the whole packet now, as well as anything else they can find (Ward, Hudson & Bulik, 1993).

It seems likely that, due to the absence of compensatory behaviours designed to prevent weight gain, individuals with BED will become obese, especially further into the course of the disorder. The majority of studies looking at BED to date have used clinical samples drawn from weight loss programmes, and thus obesity is almost

universally an associated condition of BED in these studies. However in Spitzer et al.'s (1993b) study, only 20 of the 48 BED cases identified in the community samples had current BMI's in the overweight range, and only 5 additional subjects had ever had BMI's in the overweight range. This sample is small though, and may therefore not be representative of untreated individuals in the community. Large community studies are needed to understand further the relationship between BED and obesity in non-clinical populations.

The severity of binge eating has been found to be related to weight and severity of obesity in a number of studies (*cf* Telch, Agras & Rossiter, 1988), while a number of studies have found no correlation. No studies however have found a negative correlation between severity of binge eating and severity of obesity (de Zwaan et al., In press).

Bruce & Agras (1992) found that 8% of those women in their random population sample who were overweight, also met criteria for BED. Since the proportion of binge eaters amongst obese women in weight loss programmes is considerably higher, at around 30%, it appears that obese people with BED are more likely to seek treatment for obesity, than are those without BED.

It is not surprising that people with BED are more likely to seek treatment for their obesity, since they are far more distressed by their size, as well as their compulsive eating behaviour and obsessive preoccupation with issues of weight and dieting. There are considerable data to support the finding that compared to non-

bingeing obese, individuals with BED tend to exhibit a greater level of eating disordered attitudes and behaviour.

Gormally, Black, Daston, & Rardin (1982) reported that obese individuals with serious binge eating problems were characterised by a complete lack of control over urges to eat, a continual struggle to avoid binge episodes, and extreme guilt and self-hatred after episodes. In contrast, obese individuals without binge problems were characterised by an ability to control urges to eat, and the capacity to indulge in overeating without emotional upset. Obese binge eaters also reported more rigid and perfectionist standards, but lower self-efficacy than non-bingers.

In laboratory studies comparing obese binge-eaters to non-bingeing obese, the binge eaters consumed significantly more in both a normal meal and a binge meal condition. Furthermore, the type of food chosen differed between the groups, with binge eaters consuming a greater amount of fat, and less protein than their non-binge eating counterparts (de Zwaan, et al., In press). However the amount of calories consumed by the obese binge eaters in a study by Goldfein, Walsh, LaChaussee, Kissileff, & Devlin (1993) was substantially less than that consumed by normal-weight BN patients under identical conditions, suggesting that the eating behaviour of individuals with BED may be less severely disturbed than that of women with BN.

In summary, only a minority of obese persons have binge-eating problems, although this proportion appears to increase with severity of obesity, at least in clinical populations. Dietary restraint, self-imposed in an effort to conform to sociocultural ideals of

thinness, appears to lead to a preoccupation with food and episodes of disinhibited eating. Both dietary restraint and binge-eating occur across the spectrum of eating disorders, but due to the absence of compensatory behaviours in BED, obesity may be more frequently an associated condition of this than other eating disorders. Further research on larger community samples is needed to clarify the relationship between BED and obesity in non-clinical populations.

1.2.4 Relationship between BED and Dieting

An important paper on this relationship is that by Polivy & Herman (1985), entitled Dieting and Bingeing: A Causal Analysis. These authors propose that dieting causes bingeing by promoting the adaptation of a cognitively regulated eating style. That is, in order for the individual to achieve a weight lower than their physiological ideal, physiological regulatory controls of hunger and satiation must be replaced with cognitive controls. However when these cognitive controls fail, the dieter is vulnerable to disinhibition and overeating. A review of the available literature, based predominantly on samples who purge as well as binge, found that the preponderance of evidence was that bingeing was preceded by dieting (*cf* Kirkley & Burge, 1989). Thus, conclude Polivy & Herman (1995), the perception of dieting as an appropriate response to binge eating, bodes ill for the current epidemic of eating disordered behaviour.

Polivy & Herman (1995), while making an invaluable contribution to theory-building in this area, may oversimplify the issue by suggesting that dieting causes bingeing. Wilson (1993b) writes that dieting is linked to the development and maintenance of eating disorders, but is not itself a sufficient causal condition, and must

combine with other still unknown biological and psychological vulnerabilities.

There is initial evidence that in BED the temporal relationship between onset of dieting and bingeing may be different than it is in BN. Two recent studies have found that in BED the onset of binge eating more commonly precedes than follows the onset of significant dieting (Spitzer et al.,1993b; Wilson, Nonas & Rosenblum,1993). Another study found that the mean age of bingeing onset was significantly earlier in their subjects with BED, compared to BN subjects, while the mean age of onset of dieting did not differ significantly between the groups (Raymond, Mussel, Mitchell, Crosby & de Zwaan, 1993). More research is needed to clarify the relationship between dieting and bingeing in BED.

Dieting behaviour, and the resulting weight fluctuations, are strongly associated with negative psychological attributes in both normal weight and obese individuals. Non-fluctuators, irrespective of weight status, showed significantly higher general well-being, greater eating self-efficacy, and lower stress (Foreyt, Brunner, Goodrick, Cutter, Brownell, & St. Jeor, 1995). Research suggests that binge eating obese individuals have an earlier onset of obesity, start worrying about their weight and dieting at an earlier age, and spend more of their adult life trying to lose weight (de Zwaan, Nutzinger, & Schoenbeck,1992; Hawkins & Clement, 1980; Yanovski, Nelson, Dubbert, & Spitzer,1993).

Specker, de Zwaan, Raymond and Mitchell (1994) studied one hundred obese women at the beginning of an expensive weight loss programme. Although the sample was thus biased towards higher

socio-economic status, and towards more severe obesity (participants needed to be at least 50lb overweight), subjects were carefully divided into four groups according to severity of overeating (no overeating, overeating without dyscontrol, overeating with dyscontrol, and those who met full criteria for BED). There was a tendency for patients with more severe binge eating problems to have a longer dieting history, more weight fluctuations, and to have started dieting at an earlier age.

Contrasting with the above finding however is a study by Kuehnel & Wadden (1994). They found no relationship between binge eating and weight cycling in their sample of 70 women (30 non-bingers, 29 problem eaters and 11 binge eaters).

In conclusion, the weight of the evidence appears to suggest that dieting attitudes and behaviours are more prevalent in the histories of women with BED, as compared to non-binge eating obese women. Additionally, women with BED tend to have started dieting at an earlier age, to have experienced a larger number of weight fluctuations, and to have spent a larger part of their adult lives on diets, than their non-bingeing counterparts. Although dieting is linked to eating disordered behaviour, including bingeing, dieting does not alone cause bingeing. The etiology of eating disorders is complex. Finally, initial data suggests that in BED, onset of binge eating precedes onset of significant dieting.

1.2.5 Relationship between BED and Bulimia Nervosa

A number of researchers have pointed to the similarities between obese binge eaters and normal weight BN patients. Both groups have been found to have elevated rates of affective disorders, and a high degree of preoccupation with controlling food intake and setting high dieting standards (Marcus, Wing, & Lamparski, 1985). Marcus, Smith, Santelli, & Kaye (1992) administered the Eating Disorders Examination to 17 binge eating women, and found levels of eating disorders psychopathology similar to those reported by BN patients. In addition a number of binge eaters report occasional use of purging substances, especially amphetamines, laxatives and diuretics (Spitzer, et al., 1993b).

There is some confusion in the literature over use of the terms purging and non-purging. Some authors use the term non-purging to include all compensatory behaviours except vomiting. However the DSM-IV includes the use of laxatives, diuretics and enemas, as well as vomiting, in its criteria for BN, purging type.

The distinction between purging BN and BED in terms of percentage overweight seems relatively clear, with little overlap between the two groups. For example in one study only 4.2% of 591 subjects with purging BN were ≥130% above ideal weight (Mitchell, Pyle, Eckert, Hatsukami, & Soll, 1990). Compared to purging bulimics, people with BED tend to binge less frequently, and to consume fewer calories during a binge (Marcus & Wing, 1987). In addition, the pattern of bingeing behaviour tends to be different, in that binge eaters who do not purge may 'graze' (eat continuously throughout the day),

rather than eating more rapidly over a shorter period of time, as tends to be the pattern in BN.

However the distinction between BED and non-purging BN is less clear. In Spitzer et al.'s (1993b) study, subjects with non-purging BN were similar in many respects (age, percentage overweight, odds ratio for being female) to those with BED. In addition, the compensatory behaviours employed by non-purging bulimics were not effective in preventing weight gain, and may often not have been medically hazardous.

Spitzer et al. (1992) suggested that sub-threshold bulimics, and those that abuse medications such as appetite suppressants, should be excluded from the BED diagnosis. However if this was done, then the problem remains of a large number of individuals unclassifiable in the DSM system except under the catch-all diagnosis 'eating disorder not otherwise specified'.

By 1993 however these authors' position had changed, and they now suggest that although non-purging BN is presently excluded from the BED diagnosis, future studies are needed to determine if the diagnosis of BED should only exclude those cases of non-purging BN in which the compensatory behaviour actually prevents weight gain or is medically hazardous (Spitzer et al., 1993b).

There is no evidence that women with BED who engage in sub-clinical levels of compensatory behaviours other than vomiting, are meaningfully different from those that do not. Spitzer et al. (1993b) found that the association between BED and several clinical variables did not change after controlling for sub-clinical purging

bulimic behaviour (not including vomiting), in 724 subjects enrolled in weight loss treatments, even though the prevalence of BED was reduced by approximately 12%. Thus although some individuals with BED do engage in sub-clinical compensatory behaviour, this group is not distinguishable clinically from other BED subjects who do not.

A problem in drawing a line between BED and non-purging BN is that constructs such as excessive exercise, strict dieting and misuse of diet pills have never been clearly defined (McElroy, Phillips, & Keck, 1994). It is also hard to argue that a woman is misusing diet pills when she is using them as prescribed by her doctor.

In conclusion, the boundaries between BED and non-purging BN are blurred. What is clear however is that there exists a distinct sub-group of eating-disordered individuals who have clinically significant problems with binge eating, but who do not engage in compensatory behaviours regularly enough to fulfil the BN criteria. Amongst women with BED, those that exhibit sub-clinical levels of compensatory behaviours do not appear to be meaningfully distinguishable from those that do not.

1.3 BED AND MENTAL ILLNESS

1.3.1 Relationship between BED and Other Psychiatric Disturbance

Introduction

Research into obesity as a medical problem has historically found higher rates of psychological disturbance amongst obese as compared to normal weight people, and thus obesity per se has

come to be associated with psychopathology. This finding is largely based on research using clinical samples, whereas studies of obese people using non-clinical community samples have found that psychopathology is no more common among the obese than among normal weight controls (Telch & Agras, 1994). More recently researchers, rather than assuming obese people are an homogenous group, have divided them into binge eating and non-binge eating subgroups. Studies that compare these two groups have found that while non-binge eating obese people are indistinguishable from normal-weight controls, binge eating is associated with elevated rates of psychopathology (ibid).

It is important to consider the clinical status of binge eaters when considering the prevalence of comorbid psychiatric disturbance, especially depression. High levels of depression have been found amongst obese people in general (including the subset who also binge eat) who are in treatment for obesity. It may be the presence of comorbid depression that motivates these people to enter obesity treatment. Thus community samples are needed to determine if binge eating is associated with elevated psychopathology in non-clinical samples (Prather & Williamson, 1988).

High levels of comorbidity with other disorders, in clinical samples of women with BED, may simply reflect a phenomenon which has come to be known as Berkson's bias (Berkson, 1946). Berkson's bias is the increased tendency for persons with multiple diagnoses to seek and receive treatment and thus fall into study populations drawn from treatment sources.

Studies specifically comparing psychopathology in binge eating obese populations with non-binge eating obese populations have been few, and have been hampered by the problems common in new areas of research: small subject numbers, lack of clear diagnostic criteria, and/or lack of structured interviews (Specker et al., 1994).

However de Zwaan & Mitchell (1992) found that there is research evidence that the subset of obese individuals who both overeat and have a sense of loss of control (that is, BED), represent a distinct subgroup among the obese, with more eating specific and general psychopathology.

Clinical Studies

Brody et al. (1994) compared 54 normal (obese) controls, 13 subjects with BED, and 55 bulimic subjects, all drawn from a weight loss treatment programme. They found that although the BED group differed from the control group on a number of variables relating to dieting and weight history, they did not differ significantly on rates of psychopathology. With only 13 BED subjects, this study has poor statistical power, and thus the chances of finding group differences would have been low, in addition to the aforementioned problem with clinical samples.

Specker et al. (1994) compared a group of 43 obese subjects who met criteria for BED, with 57 obese control subjects. As already mentioned, this study is biased towards higher socioeconomic groups (half of the total sample had college degrees). Subjects with BED had significantly higher lifetime rates for an Axis I diagnosis compared with controls. When individual diagnoses were

considered, the two groups differed only on lifetime rates for affective disorder and BN.

Prather & Williamson (1988) compared 16 non-purging binge eaters with 16 purging bulimics and 16 obese controls. All subjects had presented to an Eating Disorders clinic for evaluation. These groups were also compared to two other community control groups, one obese and one normal-weight. The authors found that the non-purging binge eaters had significantly higher levels of depressive symptomatology as measured by the Beck Depression Inventory, than the non-clinical obese group, but the level was not higher than that of the clinical obese group. These findings support the argument that it is clinical status rather than binge eating status that may be related to level of depression. A community sample of binge eaters would have been an interesting addition to the design of this study.

Fichter et al. (1993) compared a group of 22 subjects who fulfilled criteria for BED, with 22 BN patients, and 16 obese patients. All had presented for treatment for emotional and eating disturbances. They found that the BED and BN groups were similar on measures of general psychopathology, with rates for both groups higher than that found in the obese group.

Yanovski et al. (1993) compared 43 obese subjects with BED to 85 obese subjects without BED, and found that the binge eating group had a high rate of lifetime mood disorder, and were significantly more likely than controls to have major depression, dysthymia, and panic disorder.

In summary then, clinical samples of obese are likely to have high rates of psychopathology, regardless of binge eating status. However, in some clinical studies binge eaters as a group have been found to have elevated rates of psychopathology, in particular depression, when compared to non-binge eaters.

Community Studies

Hudson, Pope, Wurtman, Yurgelun-Todd, Mark & Rosenthal (1988) compared 23 obese bulimic (DSM-III criteria) subjects with 47 obese non-bulimic subjects and 47 normal weight bulimic subjects. They found that the two bulimic groups differed from the obese non-bulimic group in that they exhibited higher lifetime rates of major affective disorder.

Note that the DSM-III criteria for bulimia did not require compensatory behaviours (although purgers were not excluded from the diagnosis). It appears that the obese bulimic group in this study more resembled BED than BN patients, as defined by the DSM-IV, as the authors reported that only 9% had used self-induced vomiting as a method of weight control. The frequency with which this group used other purging methods, such as diuretics, laxatives and diet pills, is not reported, although the majority had used one or more of these methods at some time.

A longitudinal study of a community sample of residents of Zurich, Switzerland, who were aged in their late twenties, found that binge eaters, most of whom were female, had more severe eating problems, and more anxiety and depression, than both subjects with 'weight concerns', and normal controls. This study found a 7.3% prevalence of binge eating, although the required frequency of

bingeing for a positive case was set at only 4 per year. Thus these results are not comparable with studies using DSM criteria (Vollrath, Koch, & Angst, 1992).

Marcus, Wing, Ewing, Kern, Gooding, & McDermott (1990) in a carefully designed study compared 25 obese binge eaters with 25 obese non-bingers. Sixty percent of the binge eating group met criteria for one or more psychiatric disorders, compared to 28% of the non-bingers. This difference was most apparent in the affective disorders, with four times as many bingers as non-bingers reporting a history of affective illness.

Eating Disorders and Substance Use Disorders

There is evidence that rates of alcohol and substance abuse are higher in women with BN than in the general population (Bulik, 1987), and than in women with anorexia nervosa. The percentage of bulimics with a lifetime diagnosis of substance abuse ranges from 9% to 55%, compared to a rate of 1.7% for alcohol abuse amongst American women generally (Fairburn & Wilson, 1993).

High rates of comorbid substance abuse in BN have not been found in some other studies. Two studies found no difference, and in one of these studies (Mitchell et al., 1990), the rates for both groups were high (37.5% and 44% respectively). In yet another study, using DSM-III-R criteria and a structured clinical interview (the SCID), none of the purging bulimic patients, but 23% of the non-purging bulimics, reported a lifetime history of substance abuse (McCann, Rossiter, King & Agras, 1991).

However the weight of the research evidence supports the suggestion that rates of substance use disorders are elevated in women with BN, compared to the general female population. An explanation proposed to account for this elevation is the finding that bulimic women exhibit greater impulsivity compared to both normal and anorexic women (Casper, Hedeker, & McKlough, 1992; Weiss & Ebert, 1983). It is therefore an interesting empirical question whether women with BED also have elevated rates of alcohol and substance abuse/dependence.

There is early evidence that women with BED are similar to women with BN in terms of high impulsivity. de Zwaan et al. (1994) found that their 43 subjects with BED were significantly higher than their 22 'non-overeating' subjects on the control/impulsivity subscale of the Multidimensional Personality Questionnaire. In this study subjects who did not fulfil BED criteria were divided into 3 groups: one group who reported no overeating episodes, one group of overeaters who denied loss of control, and one group of sub-threshold binge eaters. BED subjects did not differ significantly from the two intermediate groups on degree of impulsivity.

Evidence of an association between binge eating and psychoactive substance abuse in obese patients is mixed. Hudson et al.'s (1988) study (already described) revealed no difference in rates of substance use disorder between obese bulimics and obese non-binge eaters. Both groups had lower rates than the normal-weight bulimic group. This finding of no difference between obese binge eaters and obese non-binge eaters has been replicated in five other studies with widely varying methodology (Wilson, 1993a).

Interpretation of the results of these studies must take into account a number of methodological issues, including the use of varying methods of diagnosis, and sometimes questionable measurement of attitudes and behaviour associated with the disorders. In the absence of studies using psychiatric control groups, as well as normal controls, high rates of alcohol problems in women with BN and BED cannot be interpreted as indicating a specific association between eating disorders and substance use disorders (ibid).

Other Studies

A number of studies have found that obese binge eaters exhibit higher depression scores (usually based on self-report, e.g. Beck Depression Inventory, Hamilton Rating Scale for Depression), and are more likely to have a history of depression, than their non-binge eating counterparts (de Zwaan et al., In press). For example, in a 1994 study subjects with BED (n=11) scored significantly higher on the Beck Depression Inventory, and were more likely to endorse negative and self-deprecating statements, than were problem eaters or non-bingeing controls (Kuehnel & Wadden, 1994).

Binge eaters have also been found in one study to have a higher frequency of psychotherapeutic contact than obese controls (Spitzer, et al., 1993b). The psychological distress reported by obese binge eaters does not however appear to be closely related to their weight status, as in one study of 35 binge eaters, self-reported mood did not improve as a function of weight loss (Marcus, Wing & Hopkins, 1988).

Summary

Binge eating disorder appears to be a syndrome distinct from purging BN, and from non-binge eating obesity. Although the research results are somewhat variable, at this stage the evidence suggests that BED occupies an intermediary position between BN and non-bingeing obese in terms of eating-related and other psychopathology. A lifetime history of depression appears to be particularly prevalent in women with BED, as it is in women with BN. Women with BED tend to have a long history of dieting and weight concerns, and to be more likely to present for weight loss treatment than their non-bingeing counterparts.

1.3.2 BED and Family History of Mental Illness

Family history investigations in women with BED are almost absent from the literature, although a small number of studies have asked briefly about family history, as a side issue to studies of other aspects of BED. Thus in this selective review I shall also consider the family history literature in BN. As the two disorders share binge eating as a central phenomena, and appear to be similar in terms of comorbid psychopathology, albeit with BN occupying the more severe end of the spectrum, it is likely that the pattern of familial psychopathology may also be similar.

Brody et al. (1994) made a self-admitted "rudimentary assessment" of family history of binge eating, and found that significantly more of their BED subjects (n=13) compared to non-BED subjects (n=54), reported binge eating in at least one parent. In a similar vein, Hudson et al. (1988) found a higher morbid risk of major depression amongst first-degree relatives of 10 obese bulimics (DSM-III

criteria), than in a comparison group of 17 obese non-bulimics. While this finding did not reach statistical significance, the authors caution against making a type II error (failing to reject the null hypothesis, when it should have been rejected) due to their small subject numbers.

Hudson, Pope, Jonas, Yurgelun-Todd, & Frankenburg (1987) found that the rate of major affective disorder amongst first-degree relatives of DSM-III criteria bulimic probands (n=69) was significantly greater than amongst relatives of a non-psychiatric control group (n=28). However, this study compared a clinical group of bulimics with a group of community controls, thus raising the possibility that treatment-seeking, rather than bulimia, may be related to elevated rates of familial psychopathology. Community studies can answer this question.

A study by Yanovski et al. (1993), with larger subject numbers (43 obese BED subjects, 85 obese controls), found that BED subjects had significantly more first degree relatives with a history of substance abuse than obese controls. This finding is strengthened by the fact that the criteria for a positive case were stringent, requiring the relative to have been diagnosed or treated professionally for the disorder, or to have suffered a medical condition as a result of the disorder. While the results of this study are provocative, they require replication before any conclusions can be drawn regarding the prevalence of substance disorders in the families of women with BED.

Thus due to methodological problems in many of these studies, few conclusions regarding the prevalence of psychopathology in

biological relatives of BED probands can be drawn, and more research is needed to establish a knowledge base in this area.

More data are available on psychopathology in the relatives of BN probands. Alcohol and drug abuse/dependence in particular, have been found to be very prevalent. In a study of 35 BN subjects and 35 healthy controls, alcoholism and major depression occurred significantly more frequently in the first and second degree relatives of the bulimic group (Bulik, 1987).

Studies that look at the prevalence of eating disorders in the relatives of BN probands have produced mixed results, and are also subject to methodological limitations. However in a twin study with large subject numbers, concordance for BN was 22.9% for monozygotic and 8.7% for dizygotic twins, suggesting that risk of BN is substantially influenced by genetic factors (Kendler, MacLean, Neale, Kessler, Heath & Eaves, 1991).

In conclusion, the prevalence of alcohol abuse and dependence, major depression, and BN have been found to be elevated in the relatives of BN probands. The sparse literature on familial rates of psychopathology in BED suggests that a similar pattern of disorders may be present in the relatives of BED probands, but more research is needed before any firm conclusions can be drawn.

1.4 BED AND PERCEPTIONS OF CHILDHOOD ENVIRONMENT

1.4.1 Introduction

It has been suggested by a number of researchers that binge eating may be associated with deficient or dysfunctional parenting. According to psychoanalytic theorists, binge eaters turn to food as a pathological, externalised substitute for certain vital maternal functions that the individual never adequately internalised during childhood (Humphrey, 1986). Thus the psychoanalytic hypothesis of binge eating suggests that binge eaters turn to food rather than other people or their own internal resources, to obtain nurturance, understanding and affirmation, and to regulate tension and emotion.

Conflict over control has also been hypothesised as important in the development of eating disorders (Slade, 1982). Eating disordered behaviour may represent an attempt by a young woman to exercise control over some aspect of her life, when she perceives that most other aspects of her life are externally controlled, usually by her parents.

Two self-report instruments that investigate subjects' perceptions of their families of origin were used in this study, and are described further in Chapter 2. Although by no means representing a test of psychoanalytic theory of eating disorders, their use in this study will investigate whether binge eaters as a group perceive their parents and family environment more negatively than non-binge eating controls. Since there are very few studies of the family perceptions of BED subjects, findings representative of that in the BN literature will be reviewed.

1.4.2 The Parental Bonding Instrument

The Parental Bonding Instrument (PBI) is an instrument originally described by Parker, Tupling & Brown in 1979. The scale has two theoretically derived dimensions, which are measured on separate subscales. These are perceived parental care and perceived parental overprotection (control). The care construct comprises items with content of affection and closeness at one extreme, and indifference and rejection at the other. The overprotection construct includes items suggestive of intrusiveness and control at one pole, and encouragement of autonomy at the other (Russell, Kopec-Schrader, & Beumont, 1992). The combination of low care and high overprotection has been called "affectionless control" by Parker et al. (1979), and has been found to be associated with later maladjustment.

Studies using the Parental Bonding Instrument

Pole, Waller, Stewart, & Parkin-Feigenbaum (1988) administered the PBI to an American sample of 56 bulimic patients and 30 controls. They found that their bulimic subjects perceived their mothers as significantly less caring than did control subjects, and this same pattern approached significance level for fathers. In addition bulimics tended to see their fathers as overprotective, but not their mothers. These authors conclude that their study supports the suggestion that the parenting experience of bulimics differs from that of controls, and suggest that "bulimic symptoms may disguise what may be a defect in ego development, related in part to inadequate parental empathy, rather than a basic problem of self control". Pole et al.'s finding of paternal overprotection has been

replicated in a British sample (Calam, Waller, Slade, & Newton, 1990).

Rhodes & Kroger (1992) administered the PBI to a group of 20 late-adolescent eating disordered women (bulimic, anorexic, and bulimic anorexics), and found that compared to normal controls, these women reported their mothers, but not fathers, as significantly less caring and more overprotective (i.e. affectionless control).

Ahmad, Waller, & Verduyn (1994) used the PBI to compare the perceptions of Asian and Caucasian schoolgirls living in Bolton, north-west England. The Asian girls reported higher levels of bulimic attitudes than their Caucasian peers, and the authors found that a significant part of this variance was accounted for by the Asian girls' greater levels of perceived maternal control, as measured by the PBI.

Kent & Clopton (1992) compared a group of 24 BN women with 24 sub-clinical BN women and 24 normal controls on the PBI. Subjects were college students, and were identified by surveying a total of 825 students. No significant findings were found, in contrast to the findings of research done in treatment settings, in which bulimics have reported more family conflict or less caring from their parents than have symptom-free subjects. This result raises the question whether the clinical subjects in earlier studies were unrepresentative of eating disordered women in the community, with regard to perceptions of parental care and control.

1.4.3 The Family Environment Scale

The Family Environment Scale assesses three areas of the family social environment as perceived by individual family members: interpersonal relationships (cohesion, expressiveness, and conflict); directions of personal growth (independence, achievement orientation, intellectual-cultural orientation, and moral-religious emphasis); and basic organisational structure (organisation and control). Previous research has characterised the families of bulimic patients as being more conflictual and allowing less independence in its members (Kent & Clopton, 1992).

Again there is a dearth of research considering family environment features in women with BED, so extrapolation to the literature on BN will be necessary. Overall families of bulimic women tend to be more overtly dysfunctional than both control families and the families of anorexic women, although of course great variation exists between families in each group (Bulik, 1994).

Studies using the Family Environment Scale

Using the Family Environment Scale, Johnson & Flach (1985) studied 105 female normal-weight bulimics, and 86 controls. The groups were matched on various social and family variables. The bulimic patients perceived their families to be less cohesive, less open in the expression of feelings, more conflictual, less encouraging of independence and assertiveness, less involved in intellectual, cultural, or recreational activities (although sharing high achievement expectations), and less concerned with moral and religious issues (Hsu, 1990).

Bulik & Sullivan (1993) compared BN women with comorbid alcohol abuse/dependence, BN women without comorbid alcohol abuse/dependence, and normal controls. While results on the ten dimensions of the FES were non-significant between groups, results from other measures were that both groups of bulimic women perceived their fathers as being significantly more seductive than did normal controls (Bulik & Sullivan, 1993).

In Kent & Clopton's (1992) study, bulimic subjects scored significantly lower on the expressiveness subscale of the FES, than normal controls. There were no significant differences found on the nine other subscales of the FES.

1.4.4 Eating Disorders and Childhood Sexual Abuse

High rates of childhood sexual abuse (24-50%) have been reported in a number of studies of bulimic women (Bulik, 1994; Bulik, Sullivan & Rorty, 1989). However due to the absence of psychiatric control groups in most of these studies, it is unclear whether the risk conferred by a history of sexual abuse is greater for eating disorders, or whether it is common to psychiatric disorder in general. The findings of a 1992 study suggest that there is an increased risk of psychiatric disorder conferred by sexual abuse, but that this risk is not specific to BN (Welch & Fairburn, 1994).

In contrast to the above findings, a recent review of the literature on BN and childhood sexual abuse identified several methodological factors in studies which may have exaggerated the rates of abuse found in subjects with BN, compared to the general population (Pope & Hudson, 1992). These authors concluded that current

does not support the hypothesis that childhood sexual abuse is a risk factor for BN.

Three studies have reported on sexual abuse histories in women with BED. Yanovski et al. (1993) found no significant difference between his group of obese BED subjects (n=43) and obese subjects without BED (n=85) in reported experience of sexual abuse. Thirty percent of their subjects were male. Since age of victimisation was not specified by the authors, one would assume that adult sexual abuse was also included in this measure.

Kanter, Williams, and Cummings (1992) identified 164 self-reported binge eaters on the basis of questionnaire responses, and found that while childhood physical and sexual abuse were more common in this group than in a control group of 114 non-binge eaters, the difference was not significant. However overall victimisation, which included both physical and sexual abuse occurring at any age, was found to occur at a significantly higher frequency in the binge eating group. These findings need to be interpreted cautiously, as assignment to groups was on the basis of questionnaire responses rather than clinical interview.

Spitzer et al. (1993b) reported on the frequency of sexual abuse in their large multisite study (1785 subjects drawn from weight control programmes, of whom 29% met BED criteria; 942 non-patient community subjects, and 75 BN subjects). Age of victimisation was not reported, so it is possible that some instances of abuse occurred after the onset of the eating disorder. These authors found that BED occupied an intermediary position between BN and non-BED obese subjects, in terms of sexual victimisation. A

history of sexual abuse was significantly more common in the BN subjects than in the BED subjects, but compared to obese women without BED and to the non-patient community sample, sexual victimisation was significantly more likely to have occurred in the BED group.

In conclusion, while three studies of women with BED have reported on rates of sexual abuse, only one distinguished CSA from abuse in general, and this study failed to find a significant increase in the rate of CSA in their binge eating subjects, compared to controls. Methodologically sophisticated studies are required to determine whether the experience of CSA does confer increased risk of eating disorders, and psychopathology in general. It has been suggested that it may be family disorganisation in general that creates vulnerability, and sexual abuse is a spurious third factor that occurs more frequently in disorganised families (Fromuth, 1986).

1.5 BED AND SELF-ESTEEM

1.5.1 Defining Self-esteem

Rosenberg (1965) writes that self-esteem expresses the feeling that one is 'good enough', akin to self-acceptance. It does not necessarily imply a feeling of superiority compared to others. A person can believe they are better than others, but still have low self esteem if they fall short of self-imposed standards. High self-esteem implies self respect, and considering oneself as worthy. While one's limitations are recognised, the individual with a healthy self-esteem expects to grow and improve (Rosenberg, 1965). There are a number of self-report scales which have been developed to measure

self-esteem. One of these, developed by Rosenberg (1965), has been widely used. The psychometric properties of this scale are reviewed in Chapter 2.

1.5.2 Self-esteem, Dieting and Bingeing

Low self-esteem has been widely proposed as a likely risk factor for the development of binge eating. Low self-esteem may be causal, in that it may act as a catalyst for dieting, in an attempt to improve physical appearance. The decision to diet has been found to be made more frequently in girls with low self-esteem, of whom two-thirds were within the normal weight range to begin with (Rosen, Gross, & Vara, 1987). Furthermore, low self-esteem may be an outcome of unsuccessful dieting and subsequent binge eating. When dieting is in response to low self-esteem, the dieter may have her self-concept further eroded if attempts to lose weight fail.

There are a number of alternative ways of conceptualising the relationships between dieting, binge eating, and self-esteem. One possible explanation is that prolonged dieting results in binge eating only if the dieter also has low self-esteem. A second possibility, which has not been tested empirically, is that low self-esteem promotes binge eating as a palliative strategy (Striegel-Moore, 1993).

Low self-esteem then may be a cause of binge eating, or an outcome of it, or a combination of the two. The current correlational nature of the data on dieting, bingeing, and self-esteem does not allow us to decide between these alternatives (Polivy & Herman, 1993).

1.5.3 Research on Self-esteem and Binge Eating

Beren & Chrisler (1990) found significantly lower levels of self esteem in their sample of disordered eaters, compared to controls. Similarly, Mayhew and Edelmann (1989) found a negative correlation between self-esteem as measured by the Rosenberg self-esteem scale, and eating disordered attitudes and behavioural traits, in their sample of 49 undergraduate students.

Polivy, Heatherton & Herman (1988) investigated the relationship between self-esteem, as measured by a modified version of the Janis-Field self-esteem scale, and dietary restraint. They found that high self-esteem protected subjects from disinhibited eating following a high-calorie preload (likely to produce the abstinence violation effect). Since by far the majority of dieters have low self-esteem, the authors suggest that a possible causal mechanism may be that repeated dietary failures or episodes of disinhibition will erode self esteem and thus make the dieter more susceptible to disinhibited eating in the future, creating a downward spiral.

In de Zwaan et al.'s (1994) sample of 100 obese women, the BED subjects reported significantly lower self-esteem on the Rosenberg Self-Esteem Scale, compared with the non-BED subjects. Two studies have demonstrated an inverse relationship between binge eating severity and self-esteem (Lowe & Caputo, 1991; Hawkins & Clement, 1980). In addition, Wolf and Crowther (1983) found that low-self-esteem is a strong predictor of binge eating severity, regardless of weight.

Thus low self-esteem has been reliably found to be correlated with dieting, eating disorders, and more recently with binge eating in women with BED. The question of whether low self-esteem predisposes to eating disordered behaviour, or is a consequence of it, or a combination of both, requires longitudinal research in order to answer.

1.6 THE PRESENT STUDY

The present study seeks to further elucidate the correlation between binge eating and lifetime rates of psychiatric disorder, in a community sample of New Zealand women. The use of a structured clinical interview will increase the reliability of the BED diagnosis, as well as other psychiatric diagnoses. This is the first New Zealand study to use the DSM-IV criteria for BED. It will be of interest to see if the finding of increased psychopathology in women with BED, compared to obese non-binge eaters, can be replicated in this population.

Very little is known about the families of women with BED, in terms of the incidence of psychiatric disorders. In the present study, rates of major depression, substance disorders, and eating disorders in first degree relatives of binge eating probands will be investigated, based on subjects' report.

In addition to diagnostic information, information is being sought with regard to subjects' perceptions of the characteristics of their parents in terms of care and control, and of their family environment in general. This may shed some light on the question of whether women with BED are similar to women with BN in

describing their childhood families as more dysfunctional than do controls, and their parents as having tended to provide lower levels of care and exercise higher levels of control.

In addition, this study will investigate whether the rate of childhood sexual abuse amongst women with BED is elevated, relative to obese controls. Although controversial, it is generally agreed that CSA confers an increased risk of psychopathology in general, and most studies of women with BN have found elevated rates of CSA. Few studies have examined this issue in women with BED. Finally, the present study will investigate levels of self-esteem amongst women with BED, compared to a control group of women without BED.

1.6.1 Hypotheses

It is hypothesised that women with BED will report elevated rates of psychopathology compared to women without BED. It is anticipated that in particular, elevated rates of affective disorders, alcohol and substance abuse/dependence, and anxiety disorders, will be found.

It is hypothesised that higher rates of major depression, substance disorders, and eating disorders will be reported to be present in first degree relatives of women with BED, compared to the relatives of non-BED controls.

It is hypothesised that compared to non-BED controls, women with BED will report lower levels of care and higher levels of parental control, as measured by the Parental Bonding Instrument.

It is hypothesised that women with BED will more often describe their family as having had dysfunctional aspects than will non-BED controls, as measured by the 10 subscales of the Family Environment Scale. In particular, it is anticipated that women with BED will rate their families as having been higher on the conflict subscale, and lower on the cohesion, expressiveness, and independence subscales.

It is hypothesised that compared to non-BED controls, women with BED will report a higher rate of sexual victimisation in childhood.

It is hypothesised that compared to non-BED controls, women with BED will report decreased levels of self-esteem, as measured by the Rosenberg Self-Esteem Inventory.

Chapter 2: METHOD

2.1 SUBJECTS

Twenty women with binge eating disorder and twenty healthy female controls participated in this study. Ethical approval for this investigation was given by the University of Canterbury Ethics Committee, and all subjects gave written informed consent. The information sheet given to subjects, and the consent form that they subsequently signed, are attached as Appendices A and B respectively.

2.1.1 Binge Eating Subjects

The experimental group consisted of 20 women who responded to a community advertisement in Christchurch's daily newspaper. This advertisement sought women who were currently binge eating, but who did not purge (see Appendix C). Each of the 45 respondents to the advertisement were interviewed briefly by telephone to ensure that they currently fulfilled the diagnostic criteria for BED, and that they had never engaged in regular purging behaviours. After sub-clinical binge eaters and women with a history of BN were excluded, the final subject pool consisted of 22 women. One subject later cancelled her appointment due to anticipated distress, and another subject was not at her address at the arranged time, and failed to respond to a note left for her. Thus 20 women with BED were actually interviewed for the study.

2.1.2 Control Subjects

Control subjects were initially recruited through posters displayed in clothing stores and doctors' surgeries, seeking women who did not suffer distress over their eating (see Appendix D). However due to the poor response to this recruitment method, a "snowball method" of subject recruitment was used, starting with associates of the author. In addition, 4 subjects were recruited from a meeting of the weight loss organisation, Weight Watchers. Those with a past or current diagnosable eating disorder were excluded from the control group, and data for one control subject were not used due to the presence of sub-clinical anorexia nervosa, as well as significant concerns over data reliability.

2.2 MATERIALS

All subjects were administered a diagnostic screening interview and a family history questionnaire. In addition, they each completed three self-administered questionnaires, in the presence of the researcher.

2.2.1 Diagnostic Screening Interview

All subjects were administered a modified version of the 'Diagnostic Interview for Genetic Studies' questionnaire (DIGS) (Nurnberger, Blehar, Kaufmann, York-Cooler et al., 1994), with further modification to include the DSM-IV research criteria for BED (See Appendix E). The DIGS is a highly structured diagnostic interview designed to yield lifetime diagnoses on Axis I of the DSM-III-R (American Psychiatric Association, 1987). The DIGS poses a set of

specific questions about symptoms, followed by a series of standardised probes to determine symptom severity and whether the symptom can be explained by a physical illness or the use of drugs or alcohol (Marcus et al., 1990). The dependent measures used were the presence or absence of lifetime diagnoses for DSM-III-R Axis I disorders.

2.2.2 Family History Questionnaire

Data on the incidence of major depression, alcohol and drug disorders, and eating disorders in subjects' first-degree relatives were collected, using the Family History data collection procedure of the Research Diagnostic Criteria (See Appendices F and G). The dependent measures used were the presence or absence of lifetime diagnoses for selected DSM-III-R Axis I disorders, in subjects' first-degree relatives.

2.2.3 Parental Bonding Instrument (Parker et al.,1979)

This instrument is a retrospective self-report measure of perceived parental characteristics which requires subjects to score each of their parents individually on 25 items using a 4-point Likert scale, each item scoring 0-3 (See Appendix H). The scale consists of two subscales: 'care' (12 items) and 'overprotection' (13 items). These two factors have been consistently suggested as principal dimensions of parenting in factor analytic studies (Parker, 1990).

It is theorised that care and overprotection are two important dimensions of parental contribution to the parent-child bond (Parker et al., 1979). The parental contribution to bonding as

measured by the PBI, is scored on two bipolar axes, producing the four parental bonding possibilities represented in the diagram below:

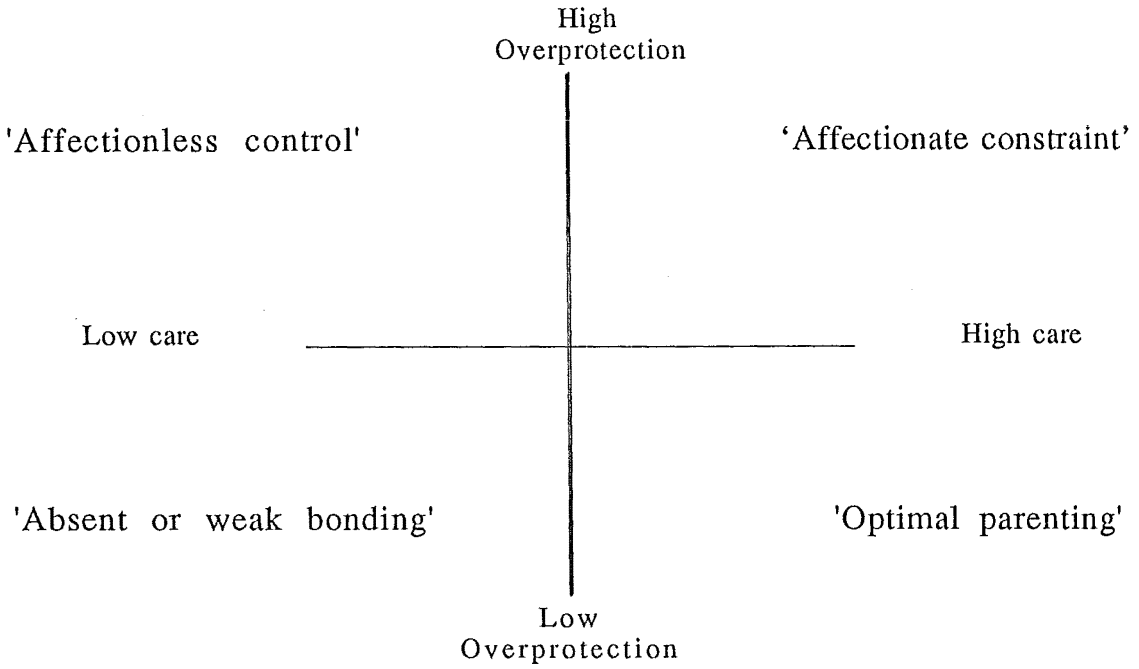

Figure Two: The Two Scales of the Parental Bonding Instrument Showing the Conceptualized Parental Bonding Possibilities.

Parker's Four Parental Styles

'Optimal parenting' is defined by high care and low protection. In this style there is parental affection and closeness coupled with promotion of the child's independence and autonomy.

'Affectionless control' is distinguished by a reduction in care towards emotional coldness, and high parental protection (intrusion, prevention of independent behaviour).

'Affectionate constraint' is associated with high care (emotional sensitivity) and high protection (intrusion, prevention of independent behaviour).

'Neglectful parenting' is associated with low care (emotional coldness) and low protection (promotion of independence and autonomy).

The Parental Bonding Instrument has proved useful for considering optimal parenting and for examining the influence of parental distortions on psychological and social functioning of offspring (Parker et al., 1979). In particular, a bond characterised by affectionless control has been linked to increased risk of neurotic disorders (Parker, 1989).

Reliability and Validity

A 1989 review of the psychometric properties of the PBI found that it has satisfactory reliability and validity (ibid). Internal consistency has been demonstrated in at least three studies, with coefficient alpha's ranging from .87 to .94. Split-half reliability was also satisfactory. Test-retest reliability has been demonstrated, resulting in the additional finding that scores on the instrument do not appear to be distorted by depressed mood. Data on long-term (10 years) test-retest reliability are also now available, and demonstrate remarkable stability.

Validity of the scale can be measured both against real and perceived quality of parenting. Parker argues that the latter is more important in terms of the construct's association with adult adjustment. Some studies however have found that PBI scores do correspond to actual parenting. For example in one study mothers were asked to score themselves on the PBI, and although their ratings were more favourable than that of their child, the two were still in moderate agreement (Parker, 1983).

Construct validity, although difficult to prove, has been demonstrated indirectly by studies demonstrating that PBI scores are not affected by trait characteristics such as a plaintive set or social desirability. Predictive validity has been demonstrated in relapse rates in schizophrenia, and in the ability to predict recovery from depression in post-partum mothers 30 months after initial assessment (Parker, 1989). Considering the number of other factors that also influence recovery and relapse in mental illness, even modest levels of predictive validity are noteworthy. The dependent measures used in this study were PBI raw scale scores.

2.2.4 Family Environment Scale (Moos, 1986)

This is a 90 item scale which measures three dimensions of family functioning; relationships, personal growth, and system maintenance. This instrument provides an overview of subjects' perceptions of the quality of their family social environment as a child. Subjects answer true or false to each statement (See Appendix I).

The subscales of the FES are not completely independent of each other, although each individual item correlates more highly with its own subscale than with any other. The test-retest reliability of the FES are all in the acceptable range, and results are relatively stable for 12 months, taking into account changes in the family milieu. Several studies support the construct validity of the FES. FES profiles have been found to be related to scores on a number of other measures of family characteristics, as well as to the ratings of trained interviewers (Moos, 1986). Discriminant validity has been

demonstrated in studies that find little relationship between scores on FES subscales, and those on measures of other, conceptually distinct aspects of families (ibid). The dependent measures used were the scaled scores for each of the 10 family environment dimensions.

2.2.5 Rosenberg Self-Esteem Scale (Rosenberg, 1965)

This questionnaire consists of 10 items to which respondents indicate on a 4 point scale the extent to which they agree/disagree that the statement applies to them (See Appendix J). Scores on this scale can range between 10 and 40, high scores being indicative of poor self-esteem.

The scale was originally developed as a measure of self-concept in adolescent populations, but has been widely used since on many different populations. Rosenberg reports that the scale has face validity, and good test-retest reliability (r = .92) was demonstrated in the original normative sample of over 5000 high-school students (Byrne, 1983). Rosenberg (1965) provides evidence for construct validity by reporting relationships between poor self-esteem as measured by the Rosenberg self-esteem scale, and measures of depression and neuroticism. Convergent and discriminative validity have been demonstrated, and Wylie (1974) viewed the high reliability relationships supporting the scale's construct validity as most impressive. The dependent measure used was the subject's raw score on the scale.

2.3 PROCEDURE

All subjects were initially screened over the telephone, and face to face interviews were arranged with those women who both satisfied criteria, and were willing to participate after the study procedure was explained to them. Interviews took place between August 1995 and January 1996, in subjects' homes, or at the University of Canterbury, according to the subject's preference. The entire procedure took between $1\frac{1}{2}$ - 2 hours to complete.

Subjects who requested treatment for their binge eating were referred to a therapist with expertise in eating disorders, and/or to the Women with Eating Disorders Resource Centre (WEDRC). All subjects were provided with a summary of results at the completion of the study.

CHAPTER 3: RESULTS

3.1 SUBJECT CHARACTERISTICS

Experimental and control groups did not differ significantly in age or Body Mass Index (BMI). BMI is a height normalised measure of adiposity (Garrow & Webster, 1995). Table 1 describes the characteristics of the two subject groups.

The two groups were also very similar in terms of marital and parental status. Of the BED subjects, 70% were married, and another 10% were in de-facto relationships. Two subjects (10%) were divorced, while one (5%) was widowed, and one (5%) had never married. All subjects had children. Of control subjects, 70% were married, another 15% were in de-facto relationships, two subjects (10%) were single, and one subject (5%) was widowed. Eighty percent of control subjects were mothers.

3.1.1 Weight and Dieting Related Characteristics

Age First Dieted

There was a significant difference between the two groups with respect to age of first dieting, for those subjects who had ever dieted (t (39) = 2.8, $p < 0.01$). BED subjects reported first dieting at a younger age than did controls (see Table 1). Only 15 of the control group subjects were included in this analysis, as the remaining 5 control subjects reported never having dieted in their lifetimes, compared with none of the BED subjects. Thus the difference in dieting behaviour between the two groups is greater than this finding suggests.

Highest Weight

The highest lifetime weights reported by BED and control subjects did not differ significantly (t (39) =1.3, , *n.s*). See Table 1.

Number of Weight Fluctuations

BED subjects reported a significantly greater number of weight fluctuations of 14 lbs or more in less than 6 months, than did control subjects (t (38) = 3.2, $p < 0.005$). See Table 1.

In addition, BED subjects reported experiencing body dissatisfaction and restricting food intake due to weight concerns, on significantly more of the fourteen days prior to their interview, than did control subjects (dissatisfaction:t (38) = 6.2, $p < 0.00005$, restraint: t (39) = 2.6, $p < 0.05$).

Table 1

Demographic, and Weight and Dieting Characteristics of Women with and without Binge Eating Disorder (t-tests).

Characteristic	BED subjects (n = 20)	Control subjects (n = 20)	t-statistic	*df*	Significance Level
Age	38.8 (9.8)	43.0 (12.6)	1.2	38	p = 0.24
BMI	30.1 (5.5)	28.6 (5.8)	0.81	38	p = 0.42
Age first dieted	21.6 (6.6)	29.1 (9.4) *	2.8	33	$p < 0.01$
Highest weight	86.1 (15.9)	79.7 (15.5)	1.3	38	p = 0.20
Weight fluctuations	7.8 (9.5) **	1.0 (1.1)	3.2	37	$p < 0.005$
Body dissatisfaction	12.0 (4.8) **	2.8 (4.5)	6.2	37	$p < 0.00005$
Dietary restraint	5.2 (6.4)	1.1 (3.4)	2.6	38	$p < 0.05$

Notes

* n =15

** n = 19

Purging Behaviours

The frequency with which subjects engaged in purging behaviours was also assessed. There were no significant differences between groups in the percentage who reported regular use of laxatives, diet pills, diuretics, or emetics. However, BED subjects were significantly more likely to report engaging in regular exercise in order to lose weight ($\chi^2(1) = 5.01$, $p < 0.05$). Results of these analyses are presented in Table 2.

Table 2

Frequency of Purging Behaviours in Women with and without Binge Eating Disorder.*

Purging behaviour	BED subjects	Control subjects	Significance
Exercise	12 (60%)	5 (25%)	$p < \mathbf{0.05}$
Laxatives	3 (15%)	0 (0%)	$p = 0.23$
Diet pills	5 (25%)	1 (5%)	$p = 0.18$
Diuretics	2 (10%)	0 (0%)	$p = 0.49$
Chemical	0 (0%)	0 (0%)	-

* all tests are two-tailed Fisher exact test, except exercise, which is $\chi^2(1)$.

3.1.2 Severity of Binge Eating

Onset of Binge Eating and Onset of Dieting

Binge eating subjects were asked to recall the age at which they had their first binge eating episode. The mean age of subjects at the time of their first binge was 16 years, with a range of 3 to 38 years. Binge eating subjects were also asked to recall the age at which they first dieted. The mean age of first dieting was 21.6

years, and ranged from 13 to 40 years. These data are presented in Table 3.

When age of onset of dieting and of bingeing for each subject were compared, it was found that 14 subjects (70%) reported first bingeing prior to the age at which they first dieted, whereas 5 subjects (25%) reported that onset of dieting preceded onset of binge eating. One subject (5%) reported onset of both dieting and bingeing in the same year.

Current Bingeing Frequency

Binge eating subjects were asked to estimate the average number of binges per week that they had in the six months preceding their interview. The minimum frequency was 2 binges per week, since less frequent binge eating would not fulfil the BED criteria, and thus exclude that subject from the study. Current binge eating frequency ranged from 2 to 7 times per week, with a mean of 3.6 binges per week (See Table 3).

Frequency of Binge Eating at its Most Severe

Binge eating subjects were also asked on how many days per week on average they binge-ate, during the three month period when their binge eating was at its most severe. The mean number of binge days reported by subjects, when bingeing was at its worst, was 5.9 days per week. Reported frequencies ranged from 2-7 days per week.

Table 3

Onset of Bingeing and Dieting, and Binge Eating Severity, in 20 Women with Binge Eating Disorder.

Measure	M (*SD*)	Range
Age at first binge	16 (8.5)	3 - 38 years
Age of first dieting	21.6 (6.6)	13 - 40 years
Current bingeing frequency	3.6 (1.7)	2 -7 per week
Bingeing frequency at its worst	5.9 (1.8)	2 -7 per week

3.2 INDIVIDUAL PSYCHOPATHOLOGY

Hypothesis One

It was hypothesised that women with BED would report elevated rates of psychopathology compared to women without BED. In particular, elevated rates of affective disorders, alcohol and substance abuse/dependence, and anxiety disorders, were expected. To test this hypothesis, the percentages of each group who received positive diagnoses for individual disorders were subjected to statistical analysis using Fisher Exact tests.

Due to the small subject numbers in this study, it was unlikely that differences between groups would be found for disorders that have low lifetime prevalence rates. Thus as well as performing individual analyses, the data on individual diagnoses were combined, to create the categories 'any Axis I diagnosis', 'any affective disorder diagnosis', and 'any anxiety disorder diagnosis'. Results of these analyses are presented in Table 4.

Table 4

Percentage of Women with and without Binge Eating Disorder who received Lifetime Axis I Diagnoses.*

Diagnosis	BED subjects	Control subjects	Significance Level
Any Axis I d/o	20 (100%)	13 (65%)	$p < \mathbf{0.01}$
Any affective d/o	19 (95%)	9 (45%)	$p < \mathbf{0.005}$
Depression	17 (85%)	9 (45%)	$p < \mathbf{0.05}$
Recurrent	8 (40%)	2 (10%)	$p = 0.06$
Antidep. Meds.	12 (60%)	4 (20%)	$p < \mathbf{0.05}$
Psychotherapy	11 (55%)	2 (10%)	$p < \mathbf{0.01}$
Self-harm	5 (25%)	0 (0%)	$p = 0.05$
Mania	1 (5%)	0 (0%)	$p = 1.0$
Hypomania	2 (10%)	0 (0%)	$p = 0.49$
Dysthymia	4 (20%)	0 (0%)	$p = 0.11$
Substance abuse	1 (5%)	0 (0%)	$p = 1.0$
Substance depend.	1 (5%)	0 (0%)	$p = 1.0$
Any anxiety d/o	13 (65%)	4 (20%)	$p < \mathbf{0.05}$
O.C.D	2 (10%)	0 (0%)	$p = 0.49$
Panic disorder	1 (5%)	1 (5%)	$p = 1.0$
Agoraphobia	1 (5%)	0 (0%)	$p = 1.0$
Social phobia	6 (30%)	2 (10%)	$p = 0.23$
Simple phobia	3 (15%)	1 (5%)	$p = 0.61$
Separation Anx. d/o	1 (5%)	0 (0%)	$p = 1.0$
Overanxious d/o	7 (35%)	0 (0%)	$p < \mathbf{0.01}$

* all tests are two-tailed Fisher exact test, except 'any anxiety d/o', which is $\chi^2(1)$.

Lifetime History of any Axis I Disorder

BED subjects, compared to controls, were significantly more likely to receive an Axis I diagnosis ($p < 0.01$). BED diagnoses were not included in this analysis.

Lifetime History of any Affective Disorder

Very high prevalence rates of affective disorder were found for both the BED and control groups in this study (See Table 4). However the lifetime prevalence of affective disorder was significantly higher in the experimental group ($p < 0.005$) than in the control group. The overwhelming majority of affective illnesses reported were major depressive disorders. The prevalence of major depression was significantly higher in the BED group ($p < 0.05$), than in controls. More of the BED than control subjects reported having experienced recurrent episodes of major depression, but this difference did not reach significance.

Significantly more BED subjects than controls reported taking antidepressant medication ($p < 0.05$), and receiving treatment from a mental health professional ($p < 0.01$). Five BED subjects, but no controls, reported ever having engaged in self-harm behaviours. However this difference was not significant.

Lifetime History of any Anxiety Disorder

BED subjects received lifetime diagnoses of an anxiety disorder significantly more frequently than did control subjects. ($\chi^2(1) = 6.55$, $p < 0.05$). Of the individual anxiety disorders, only Overanxious Disorder of Childhood was significantly more frequent in BED subjects ($p < 0.01$).

Hypothesis one receives partial support from these results: elevated rates of affective and anxiety disorders were found in women with BED, compared to women without BED. However rates of alcohol and drug abuse/dependence did not differ between groups in this study.

3.3 FAMILY HISTORY OF PSYCHOPATHOLOGY

Hypothesis Two

It was hypothesised that higher rates of major depression, substance disorders, and eating disorders would be reported to be present in the first degree relatives of women with BED, compared to non-BED controls. To test this hypothesis, subjects were questioned about the presence of symptoms of major depression, alcohol abuse and dependence, drug abuse and dependence, anorexia nervosa, bulimia nervosa, and binge eating disorder, in each of their first degree relatives during their lifetimes.

No significant differences were found between groups in the percentage who reported a family history of major depression, alcohol or drug abuse/dependence, anorexia nervosa or bulimia nervosa (See Table 5). However the percentage of BED subjects who reported having at least one first-degree relative who suffered from binge eating disorder, was significantly greater than it was for controls ($p < 0.0005$).

Table 5
Percentage of Subjects who Reported Selected Disorders in One or More of their First-Degree Relatives (Fisher exact tests).

Diagnosis	BED Subjects	Control Subjects	Significance Level
Depression	17 (85%)	12 (60%)	$p = 0.15$
Substance abuse	6 (30%)	2 (10%)	$p = 0.24$
Substance Dependence	4 (20%)	2 (10%)	$p = 0.66$
Anorexia nervosa	0 (0%)	0 (0%)	-
Bulimia nervosa	1 (5%)	0 (0%)	$p = 1.0$
Binge eating d/o	12 (60%)	1 (5%)	$p < \mathbf{0.0005}$

Finally, subjects were also asked about the numbers of their first-degree relatives who had ever been obese, and the numbers who were in the subjects' view, preoccupied or overconcerned with body shape, weight or dieting. The groups did not differ significantly on the average number of relatives with obesity. However BED subjects reported having a significantly greater number of relatives who were preoccupied ($\chi^2 = 2.71, p < 0.05$). Table 6 presents the results of these chi-square analyses:

Table 6

Number of First-Degree Relatives with Lifetime Histories of Obesity and Preoccupation, in Women with and without Binge Eating Disorder (Chi-square analyses).

Characteristic	BED Subjects	Control Subjects	χ^2 Statistic	Significance Level
Obesity	1.5 (1.4)	1.3 (1.3)	0.57	$p = 0.57$
Preoccupation	1.7 (1.3)	0.7 (0.8)	2.71	$p < 0.05$

3.4 FAMILY ENVIRONMENT FACTORS

Three hypotheses were made concerning aspects of subjects' childhood experiences, the quality of their family social environment, and of the parenting they received. In broad terms, it was expected that BED subjects would report these aspects of their childhoods in a more negative light than would control subjects.

Hypothesis Three

It was hypothesised that compared to non-BED controls, women with BED would report lower levels of parental care and higher levels of parental control, as measured by the Parental Bonding Instrument (Parker et al., 1979). This hypothesis was tested by comparing each group's scores on this measure.

Women with BED scored lower than community controls on the Parental Care scale and higher on the Parental Protection scale for both mother and father ratings. Analysis of variance revealed that all of these differences were statistically significant (Maternal Care: $t = 4.7$, $p < 0.0005$; Maternal Protection: $t = 4.0$, $p < 0.0005$; Paternal

care: $t = 3.1$, $p < 0.01$; Paternal Protection: $t = 2.2$, $p < 0.05$) Table 7 presents these results in tabular form.

Table 7
PBI Subscale Means and Standard Deviations for Women with and without Binge Eating Disorder.

	BED group ($n = 20$)		*Control group* ($n = 20$)			
PBI Subscale	*X*	*(SD)*	*X*	*(SD)*	*t-value (df)*	*p*
Mother						
Care	17.9	(8.8)	28.8	(5.6)	4.7 (38)	< **0.0005**
Protection	18.5	(6.6)	11.4	(4.5)	4.0 (38)	< **0.0005**
Father*						
Care	15.3	(10.6)	24.9	(8.7)	3.1 (36)	< **0.01**
Protection	16.2	(8.6)	10.7	(6.0)	2.2 (36)	< **0.05**

*due to the fact that 2 subjects (1 from each group) had no father-figure, n = 19 for both groups on the paternal scale.

Thus hypothesis three was strongly supported: subjects with BED reported both their parents as being significantly lower in care and higher in overprotection, than did subjects without BED. The strength of this effect was particularly pronounced for maternal care and overprotection.

Parker's Four Parenting Styles

Subjects can be assigned to one of the four parenting style quadrants, based on PBI scores. Normative scores obtained from the Sydney general practice studies have been used to partition the quadrants. Results revealed that 70% of women with BED were placed in the "Affectionless control" quadrant on the basis of their ratings of their mothers, compared to 15% of controls. Conversely,

10% of the BED group were placed in the "optimal parenting" quadrant for mothers, compared to 60% of controls (See Table 8).

The pattern for subjects' ratings of their fathers was similar to that of their mothers, but not so pronounced. Forty seven percent of women with BED rated their fathers' parenting in the "affectionless control" quadrant, compared to 26% of controls. Finally, fathers were rated in the "optimal parenting" quadrant by 21% of the BED group, and 47% of controls.

Table 8

Percentage of Women with and without Binge Eating Disorder assigned to Parker's four parental styles, based on PBI scores.

	Mothers		Fathers	
Parenting Style	*BED group*	*non-BED group*	*BED group*	*non-BED group*
Optimal parenting	10%	60%	21%	47%
Affectionless control	70%	15%	47%	26%
Affectionate constraint	10%	10%	11%	11%
Neglectful parenting	10%	15%	21%	16%

Thus women with BED more frequently rated their mothers, and their fathers, as having a parenting style characterised by affectionless control, than did women without BED. Conversely, the optimal parenting style was more frequently reported in the mothers and fathers of control subjects, than in those of BED subjects.

It was hypothesised that women with BED would describe their childhood family environment as having been more dysfunctional than would control women, as measured by the 10 subscales of the Family Environment Scale. In particular, it was anticipated that women with BED would rate their families as having been higher on the conflict subscale, and lower on the cohesion, expressiveness, and independence subscales. This hypothesis was tested by comparing results of the two groups on the 10 FES subscales, using student t-tests. A more stringent probability level of 0.01 was set for these analyses, to control for multiple comparisons and as subject numbers did not allow for multivariate analyses.

Significant differences were found between groups on 6 of the 10 subscales. Compared to the families of non-binge eating controls, women with BED described their families as having been significantly lower in cohesion, expressiveness, independence, intellectual-cultural orientation, and active-recreational orientation. Furthermore, women with BED described their families as having had significantly higher levels of conflict. Results of these analyses are presented in Table 9.

Table 9

FES Subscale Means and Standard Deviations for Women with and without Binge Eating Disorder.

FES Subscale	BED Subjects	Control Subjects	t-statistic	Significance level *(.01)*
Cohesion	26.0 (23.2)	53.0 (13.3)	4.5	$p < \mathbf{0.0005}$
Expressiveness	27.5 (12.4)	43.2 (11.7)	4.1	$p < \mathbf{0.0005}$
Conflict	59.4 (15.1)	46.3 (12.0)	3.0	$p < \mathbf{0.005}$
Independence	32.0 (17.0)	47.3 (14.3)	3.1	$p < \mathbf{0.005}$
Achievement Orientation	39.4 (17.2)	44.4 (12.8)	1.0	$p = 0.31$
Intellectual-Cultural Orientation	36.0 (15.4)	51.0 (12.2)	3.4	$p < \mathbf{0.005}$
Active-Recreational Orientation	37.0 (10.9)	49.7 (11.6)	3.5	$p < \mathbf{0.005}$
Moral-Religious Emphasis	46.0 (3.6)	51.9 (11.7)	1.5	$p = 0.15$
Organisation	48.8 (15.9)	54.9 (11.9)	1.4	$p = 0.18$
Control	57.9 (14.9)	54.6 (11.4)	0.77	$p = 0.44$

Thus women with BED in this sample tended to describe their childhood family environments as higher on negative characteristics, such as conflict, and lower on positive characteristics such as cohesion, expressiveness and independence. These results are in support of hypothesis four.

3.5 HISTORY OF CHILD SEXUAL ABUSE

Hypothesis Five

It was hypothesised that compared to non-BED controls, women with BED would report a higher rate of sexual victimisation in childhood. While results were in the expected direction, the difference did not reach significance level. Table 10 presents results of this analysis.

Table 10
Reported Incidence of Childhood Sexual Abuse in Women with and without Binge Eating Disorder (Fisher Exact test).

Measure	BED Subjects	Control Subjects	Significance level
Experience of Child Sexual Abuse	9 (45%)	3 (15%)	$p = 0.08$

Thus hypothesis five is not supported.

3.6 SELF-ESTEEM

Hypothesis Six

It was hypothesised that compared to non-BED controls, women with BED would report decreased levels of self-esteem, as measured by the Rosenberg Self-Esteem Inventory (Rosenberg, 1965). This hypothesis was tested by submitting subjects' scores on this inventory to t-test analysis.

Results revealed that compared to controls, women with BED reported significantly lower levels of self-esteem (t (37)= 5.7, $p <$ 0.00005). Table 11 presents results of this analysis.

Table 11

Levels of Self-esteem in Women with and without BED (t-tests).

Measure	BED Subjects	Control Subjects	t-statistic	Significance level
Rosenberg Self-esteem Scale	25.3 (5.2)	17.1 (3.7)	5.7	$p < \mathbf{0.00005}$

Thus hypothesis six is strongly supported by the data.

CHAPTER 4: DISCUSSION

4.1 EXPLANATION OF RESULTS OF THE PRESENT STUDY

The present study sought to investigate Axis I psychopathology in a community sample of women with BED, and in their first-degree relatives. A second objective was to investigate the relationship between parenting and family environment variables in childhood, and the later development of BED. A number of hypotheses were formulated, which will each be discussed with reference to the results of the present study, and the wider literature.

Hypothesis One of the present study predicted that higher rates of Axis I disorders would be found in women with BED, compared to obese controls. This prediction was based on the findings of previous studies, particularly those using community samples, that had found elevated rates of psychopathology in obese binge eaters compared to obese non-binge eaters (de Zwaan & Mitchell, 1992). As predicted, a significantly higher rate of Axis I disorders was found in the BED group in the present study, compared to controls.

Hypothesis One also predicted some specific classes of psychopathology which might be diagnosed more frequently in subjects with BED. The existing literature has found elevated rates of affective disorders in women with BED compared to weight-matched controls (Marcus et al., 1990). Elevated rates of affective disorders have been found in eating disordered women in general. The literature on the comorbidity of anxiety and substance disorders with BED is sparse and inconclusive. However high rates of anxiety disorders and substance disorders have been found in

women with BN (Bulik, 1994; Bulik, 1987). It was thus hypothesised that rates for these disorders may also be elevated in women with BED.

As predicted, significantly elevated rates of affective disorders were found in the BED group in this study, compared to obese controls. What is surprising about the results of the present study is the very high rates of major depression in both the BED and control groups (85% vs 45%). The validity of these diagnoses is supported by the high proportion of positive cases who also reported antidepressant medication use and/or psychotherapeutic contact.

Other studies have also found high rates of affective disorder in their samples. Specker et al. (1994) found rates of 47% in their BED group and 26.3% in controls. These authors also note that their figures may underestimate true population rates, since subjects currently taking psychotropic medications were excluded from their study.

There are a number of possible explanations for the high rates of affective disorders found in the present study. Firstly, given that both groups are large women, and also are predominantly married and the mothers of children (all factors known to increase vulnerability to depression), one would expect rates of depression in both groups to be above that found in females in general (Ross, 1994).

A second possible explanation for this finding is that the BED group in this study impressed as quite severely eating disordered, based on measures of binge eating severity, their early onset of binge

eating, and the chronic course of their BED. It is possible that the subset of women with BED in the community who responded to the advertisement for this study, responded because they had more motivation for help-seeking, because they were more severely disturbed.

A third, more conceptual problem with the depression diagnosis is the ease with which the criteria can be met in cases where women experience a grief reaction to a loss which is wholly accountable for by the life events which it follows. While bereavement is seen as normal, and thus excluded from the depression diagnosis (unless the reaction is extreme or prolonged), grief responses to other major losses (marital separation for example), are not. One could argue that such reactions should be excluded from a depression diagnosis for the same reasons that bereavement is. A diagnosis of adjustment disorder may seem a more appropriate one than depression for such a situation. However the DSM-IV excludes the former diagnosis if the criteria for a specific anxiety or mood disorder are met (American Psychiatric Association, 1994).

A number of subjects in this study reported grief reactions to life events, which clearly fulfilled diagnostic criteria for depression, yet which resolved spontaneously and reasonably quickly. The now-abandoned distinction between reactive and endogenous depression was certainly problematic, but so too is a complete disregard in the diagnostic nomenclature, for the context in which depressive reactions occur.

In the present study, anxiety disorders were diagnosed in the BED group at a significantly higher rate than in the control group. This

result was assisted by a significantly higher rate of childhood overanxious disorder in the BED group. The finding of an elevated rate of childhood overanxious disorder in the histories of women with BED is consistent with results from another recent study which looked at the history of childhood anxiety disorders in women with BN (Bulik, Sullivan, Fear & Joyce, In submission). The association between childhood anxiety disorders and adult eating disorders has received little attention, and may be a fruitful area for future research.

Results of this study did not support the prediction that rates of substance use disorders would be elevated in women with BED, compared to obese controls. The existing literature on comorbidity of substance disorders and BED is mixed, while the increased rate of substance disorders in BN women and their families is well-established. It may be that this is an area in which the typical profiles of women with BED and BN differ.

Demographic differences between purging and non-purging BN, in terms of age and marital status, have been reported by McCann et al. (1991), who suggest this may be evidence that the two subtypes of BN represent different disorders. Similarly, research has found that women with BED tend to be older than women with BN (de Zwaan et al., In press). Furthermore, the majority of BED subjects in the present study were married, and in McCann et al's (1991) study, more of the non-purging BN group than purging BN group had been married (73% vs 30%).

It has previously been suggested that non-purging BN may be more similar to BED than purging BN (Spitzer et al.,1993b; McElroy,1995), and these demographic trends lend strength to this argument.

Demographic differences between BN and BED may be related to a differing propensity for substance use disorders. It is possible that the personality profiles for the two disorders are different, with BED women tending to be more conforming to societal norms. It is also possible that a cohort effect is operating, in that younger women are both more knowledgeable about bingeing-purging behaviour (McCann et al., 1991), and more likely to abuse substances, possibly as a result of the weakening of social sanctions against substance use by females.

However McCann et al.'s finding of higher rates of substance abuse in their non-purging BN group is not consistent with the above argument. Carefully designed studies that compare purging bulimics, non-purging bulimics, and BED subjects, are needed to tease out these complex issues.

In conclusion, the failure to find increased substance use disorders in BED women in this study may simply be a chance finding due to small subject numbers, or it may reflect a real difference between BED and BN. If the difference is real, two possible explanations are that the two disorders differ in their personality profiles, or that a cohort effect is operating, whereby both purging by vomiting, and substance use, are becoming more common in younger women.

Hypothesis One then was well supported by results of the present study, with the exception of its prediction of higher rates of substance use disorders in women with BED.

Hypothesis Two of the present study predicted higher rates of depression, substance disorders and eating disorders in the first-degree relatives of BED probands. Few data are available on rates of these disorders in first degree relatives of BED probands. One study (Hudson et al., 1988) found (not significantly) higher rates of depression, and another study (Brody et al., 1994) found significantly higher rates of binge eating in relatives of BED probands. However both findings are weakened by the strong possibility of chance findings due to their small subject numbers.

Yanovski et al. (1993) found first degree relatives of obese BED subjects were significantly more likely to have a history of substance abuse than obese controls. Thus although there is a dearth of research into psychopathology in the relatives of BED probands, the BN literature suggests that rates of depression, BN, and particularly, substance abuse, are elevated in the first-degree relatives of bulimic probands, compared to controls. Hypothesis two of the present study then, was based on indirect evidence from the BN literature.

Hypothesis two received only weak support from the data. No significant differences between groups in familial rates of depression or substance disorders were found, although in both cases differences were in the expected direction. In the eating disorders, only the risk of BED was elevated in relatives of BED subjects. However as Hudson et al. (1988) cautioned, the possibility

of real differences in rates of these disorders in families of BED vs non-BED probands should not be discounted until studies using larger subject groups have been conducted.

As well as small subject numbers, a further possible reason for failure to find significant differences in familial rates of depression and substance use disorders, if in fact they do exist, is the family history method of data collection, which relies on subjects' report of the presence of symptoms of the various disorders, in their first degree relatives. In many cases subjects did not have sufficient knowledge of these matters, even if they knew that a relative 'had been through a bad patch'. Many probands rarely saw some or all of their first degree relatives, and even for those who did, knowledge of mental disorder presupposes a level of intimacy and sharing that in many cases did not exist.

While a much more ambitious undertaking, studies which use the family interview method, in which relatives are interviewed personally, may produce more reliable data. However a number of studies have shown that the family history method, although somewhat less sensitive, closely approaches the results obtained in the family interview method (Hudson et al., 1987). It may be particularly important when using the family history method, to use an interviewer who is blind to subject group, so that any systematic error of diagnosis would affect both groups equally.

As mentioned above, a significant elevation in the rate of BED in the families of BED probands, compared to controls, was found in the present study. There is little literature available on family history

of eating disorders for BED probands, although results of the present study are in accord with Brody et al. 's (1994) findings.

A minority of BED probands reported a very strong family history of BED, with multiple family members afflicted. This observation raises the possibility that there may exist a subset of women with BED, for whom familial factors, possibly genetically based, make them and their family members particularly vulnerable to this disorder. Indirect support for this suggestion is provided by a twin study of BN probands which found that the risk of BN is substantially influenced by genetic factors (Kendler et al., 1991).

In summary, hypothesis two was not supported by results of the present study, except with regard to the rate of BED in relatives of BED probands, which was significantly higher than that in the relatives of controls.

Hypothesis Three predicted that women with BED would perceive their parents as having been lower in levels of care, and higher in levels of overprotection towards them during their childhood years, compared to obese controls. No published research has studied DSM-IV diagnosed BED subjects using the Parental Bonding Instrument, so this prediction was based on findings from the BN literature, which have tended to find lower levels of care and higher levels of control reported by women with BN, compared to controls (*cf* Pole et al., 1988; Rhodes & Kroger, 1992) .

This hypothesis received very strong support from the data, with BED women rating both parents as having been significantly less caring and more overprotective. The present study, which used

subjects drawn from the community, rather than clinical settings, also provides evidence against the suggestion made by Kent & Clopton (1992) that more negative perceptions of parents may not be present in non-clinical populations of eating disordered women.

A large body of research has consistently found that this parenting style of low care together with high overprotection, which has been termed 'affectionless control', is more frequently described by people with adult maladjustment problems, including neurotic disorders (Parker, 1989). This finding is not specific to eating disorders then, but is true of much psychopathology. Kent & Clopton (1992) suggest that a negative perception of family of origin may also be a common response to psychiatric problems in subjects. Longitudinal studies which measure subjects' perceptions of their parents' parenting style before the onset of psychiatric problems, would help establish direction of causality.

Bearing these limitations in mind, the present findings of a correlation between presence of BED and perception of one's parents as having been low in care and high in control, is a robust one.

Hypothesis Four predicted that BED subjects would describe their childhood family environment more negatively than would controls, on subscales of the Family Environment Scale. As predicted, BED subjects rated their families as being significantly more conflictual, characterised by less cohesion and expressiveness, and less encouraging of independence. BED subjects in the present study also described their family environments as significantly lower on the dimensions intellectual-cultural orientation, and active-

recreational dimension. These findings are consistent with previous research on BN subjects, including Johnson & Flach's (1985) study of normal-weight DSM-III bulimics. Hypothesis four is thus strongly supported by results of the present study, providing preliminary evidence that the two disorders are similar in terms of sufferers' perceptions of their childhood family environments.

The prediction of Hypothesis Five that women with BED would report an increased rate of childhood sexual abuse (CSA) victimisation, was not supported by the data, although the difference between groups was in the expected direction. Very few previous studies have considered CSA in women with BED, and of those that have, most have considered sexual abuse in general, without considering the temporal relationship between victimisation and onset of BED (e.g. Spitzer et al.,1993b; Yanovski et al., 1993). This is obviously a very important issue if CSA is being posited as a risk factor for the later development of eating disorders.

Both Yanovski et al. (1993) and Kanter et al. (1992) failed to find significantly elevated rates of sexual abuse victimisation in their BED subjects, while Spitzer et al. (1993b) did find such a difference. The literature on the relationship between CSA and BN is confused, due to a number of methodological problems in the available studies (Pope & Hudson, 1992).

It is generally agreed that CSA confers an increased risk of psychopathology in general, and thus it would follow that rates of CSA should be elevated in women with BED, compared to the general population. However, since the control group in the present

study was on average heavier in weight than the general population, a finding of no difference between groups would be expected if obesity in general was also associated with elevated rates of CSA.

Failure to find a significant difference between groups in this study then, may be due to small sample sizes, or the presence of obesity in control subjects. However it may also be important to consider more carefully the complexity of this issue, and abuse issues in general, in designing future research into this area. Childhood physical and emotional abuse need to also be considered, as well as adult victimisation if it precedes the onset of eating disordered behaviour.

Furthermore, the nature of instances of CSA (and other types of abuse) need to be considered, and their severity taken into account when analysing data. In this study, a minority of BED subjects described harrowing and chronic histories of childhood abuse, not just sexual, but also physical and emotional. These events had clearly had a huge impact on these subjects' lives.

Some authors have also pointed out that other events mediate between the experience of CSA and its impact. CSA is not randomly distributed throughout the community, but tends to occur more frequently in children from disorganised and disadvantaged homes.

> "It is not the sexual abuse itself which is related to later negative adjustment but rather the lack of parental supportiveness which characterises the home of the sexually abused".
>
> (Fromuth, 1986)

Perhaps understandably, in that consideration of the relationship between CSA and BED was a small part of the present study, the data collection and analysis methods used here do not reflect the complexity of abuse issues and their possible relationship to later psychopathology. Future studies should address these issues in more depth.

The final hypothesis tested in the present study was that women with BED would report lower levels of self-esteem, compared to obese controls. It is a consistent finding in the literature that eating disordered behaviour is associated with low levels of self-esteem (Polivy et al., 1988). It has also been found that obese binge eaters have lower levels of self-esteem than their non-bingeing counterparts (de Zwaan et al., 1994).

Results of the present study were consistent with previous findings: BED subjects reporting significantly lower levels of self-esteem than did non-BED subjects. Hypothesis six was thus confirmed. Whether self-esteem is a risk factor for BED, or a result of it, or both, cannot be determined from the present data.

4.2 STRENGTHS AND LIMITATIONS OF THE PRESENT STUDY

There are a number of limitations of the present study which need to be borne in mind when interpreting the results. Firstly, subject numbers in both subject groups are modest at twenty, and thus the chances of making Type II errors may be quite high.

A strength of this study however, was the use of a structured clinical interview, rather than reliance on self-report data to make

diagnoses, as was the case in the largest study of BED, the multi-site field studies of Spitzer et al. (1992, 1993b). A 1995 study by Greeno, Marcus & Wing demonstrated that while self-report diagnosis of BED produces a low level of false negatives, nearly 50% of positive cases turned out not to fulfil BED criteria when a clinical interview was carried out. Authors of a number of other studies have also cautioned readers of the limitations of questionnaire measures of binge eating (*cf* de Zwann, Mitchell, Specker, Pyle, Mussel & Seim, 1993; Fairburn & Beglin, 1995).

A study by Williamson, Gleaves & Lawson (1991) suggests that binge eaters may exhibit a form of cognitive bias regarding their perception of overeating, simalar to the body image distortions found in women with bulimia nervosa and anorexia nervosa. If this is the case, self-reports of consuming 'an excessively large amount of food' by women with BED, may be unreliable. Thus studies which use self-report data on which to base BED diagnoses should be interpreted cautiously.

A second strength of the present study was the use of a community sample of women with BED. Community samples have a number of advantages over clinical samples. They eliminate the possibility that treatment-seeking is a possible confounding factor that could account for significant findings, rather than the phenomenon under study. In addition studies using community samples, particularly if they are randomly selected, allow one to generalise results to the population in general, rather than just to the subset of the population who present for treatment.

Unfortunately random selection of subjects was beyond the resources of the present study. However the self-referred community sample used here may still be more representative of women with BED in general, than would be a sample recruited from an obesity treatment setting, as a great number of studies in the literature have done.

A further limitation of the present study was the method used to recruit 16 of the control subjects; a snowball method using word of mouth starting with associates of the author. This method became necessary when attempts to recruit subjects by advertisement were unsuccessful. The remaining 4 control subjects were recruited from a Weight Watchers meeting. However even a control group recruited via advertisement would be a select group, in that they are all prepared to give of their time to assist a student and contribute to research. Such altruism may also not be representative of the general population.

A final limitation of the present study was that it was not possible for the interviewer to be blind to subject group. This fact introduces the potential for bias in the administration of the interview, as well as diagnostic decision-making in borderline cases. Although every effort was made to maintain consistency, the design would have been improved by employing an interviewer who was not involved in subject recruitment.

4.3 DIRECTIONS FOR FUTURE RESEARCH

BED is a new disorder, and as such there are few directions in which future research is not needed. Large scale studies using clinical

interviews rather than self-report questionnaires are required to confirm the findings of Spitzer et al.'s large scale study, which based BED diagnoses on self-report questionnaire data. In addition, studies with larger subject numbers will allow investigation of the rates of disorders that occur infrequently but that may be elevated in women with BED.

Another major issue in this area which requires clarification are the boundaries between BN, non-purging sub-type, and BED. There are some interesting suggestions emerging in the literature that the demographic and clinical profiles of non-purging BN patients may resemble BED patients more than they do purging BN patients. Spitzer et al. (1993b) write that future research is needed to determine if the diagnosis of BED should only exclude purging that prevents weight gain or is medically hazardous. To assist in delineating the boundaries between these disorders, attention needs to be given to defining operationally, terms such as 'excessive exercise'.

Another area in which research is urgently required is in clarification of the relationship between dieting and bingeing in BED. While in BN there is evidence that bingeing is frequently secondary to dieting, in BED preliminary evidence, including results of the present study, suggests that the reverse is more often the case in BED.

Of relevance here is the finding of Spitzer et al. (1992, 1993b) that gender ratios in BED are approximately equal in community samples. This result requires replication using clinical interviews, and if it is confirmed, attention needs to be given to identifying the

reasons for the gender ratio in BED being so discrepant from that in the other eating disorders. Wilson (1993b) writes that "the gender-related prevalence of eating disorders seems to be linked directly to the fact that women, driven by psychosocial pressure to achieve the culturally determined ideal of physical beauty, diet more frequently than do men". Perhaps the finding that in BED dieting does not tend to precede bingeing, is part of the explanation for why women do not appear to predominate in this eating disorder. Research into males with eating disorders, including BED, may help to identify more clearly the causal mechanisms underlying their development.

Within the BED diagnosis there is the issue of defining a binge. The research criteria state that binge eating is " eating in a discrete period of time (e.g. within any 2-hour period) an amount of food that is definitely larger than most other people would eat in a similar period of time under similar circumstances" (American Psychiatric Association, 1994). Yet it is noted under 'D' in these criteria that "the method of determining frequency differs from that used in BN" (ibid). In BED, binge frequency is calculated by the number of days, rather than the number of discrete episodes, as in BN. This is presumably because in BED bingeing is not punctuated by purging behaviour, and thus it is less clear when a binge ends. Consistency between these two sections of the BED criteria might be improved by removing from the binge criteria the example time-frame "within any 2-hour period".

While some women with BED may binge within a two hour period, a large number appear to have bingeing days, which they contrast with other days when they are able to follow their dietary rules

and eat "sensibly". While on a binge day the amount of food consumed in total is large, it is often spread over the day. Perhaps the rapid consumption of huge amounts of food is avoided, because vomiting is not used as a source of relief from the resulting discomfort. The type of food consumed during a binge may also be important, together with the feeling of loss of control.

Finally, information on the natural course of this disorder is lacking, particularly with regard to its overlap with BN, non-purging subtype. A significant proportion of women in this study would have fulfilled the criteria for the non-purging subtype of BN at some point in their lives. yet it has been found that some samples of BED women report relatively low levels of dietary restraint (Greeno et al., 1995). Other authors however have found that levels of dietary restraint are high in obese binge eaters (Marcus & Wing,1987).

It is possible that dietary restraint is higher earlier in the course of BED, but abandoned following repeated dieting failures. Marcus et al. (1992) note that several of their obese binge eating subjects reported that they were so overwhelmed by repeated failures that they had given up all efforts to diet. Longitudinal research will help to clarify these issues.

4.4 CONCLUSION

A community sample of 20 women with Binge Eating Disorder were found in this study to have a higher rate of psychopathology than a control group of obese women without binge eating problems. BED also occurred more frequently in the close relatives of BED subjects.

In addition, women with BED reported lower levels of self-esteem, and described their childhood environment, and the parenting they received, more negatively than did controls. These findings support the existing literature suggesting that BED is a distinct disorder associated with significant distress and impairment in functioning, although its relationship with the non-purging subtype of BN needs further investigation.

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List of Appendices

Appendix A:

Subjects' information sheet.

University of Canterbury

Department of Psychology

Binge Eating Study

INFORMATION

You are invited to participate as a subject in the research project about binge eating.

The aim of this project is to understand more about the difficulties that women who binge eat face, and to learn more about their thoughts about themselves and their family of origin.

Your involvement in this project will involve participation in an interview with the researcher, Sandra Fowler, and completion of some questionnaires about yourself and your family. The interview is concerned particularly with your history of mental illness, if any. The questionnaires include questions about any mental illnesses in your family, as well as how you remember your childhood generally.

It is anticipated that this whole procedure will take approximately one and a half to two hours.

In the performance of these tasks there are risks of some emotional distress as the result of talking about your own problems, or those of your family members. Should any part of this study upset you, the researcher will be available to discuss your feelings, and will refer you to an appropriate person for further assistance, if neccessary.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: the identity of participants will not be made public. To ensure anonymity and confidentiality, all data collected will be identified by code numbers, and only the researcher and her supervisor, Dr Cynthia Bulik, will have access to the master list matching codes to names, which will be stored securely.

The project is being carried out by Sandra Fowler, who can be contacted at 3295775, or leave a message at 3667001 ext. 6994. I will be pleased to discuss any concerns you may have about participation in the project.

The project has been reviewed and approved by the University of Canterbury Human Ethics Committee.

Appendix B:

Subjects' consent form.

University of Canterbury

Department of Psychology

Binge Eating Study

CONSENT FORM

I have read and understood the description of the above-named project. On this basis I agree to participate as a subject in the project, and I consent to publication of the results of the project with the understanding that anonymity will be preserved. I understand also that I may at any time withdraw from the project, including withdrawal of any information I have provided.

Signed: .....

Date: .....

Appendix C:

Advertisement in "The Press",
seeking women with binge eating problems.

Women Sought for Eating Disorder Study

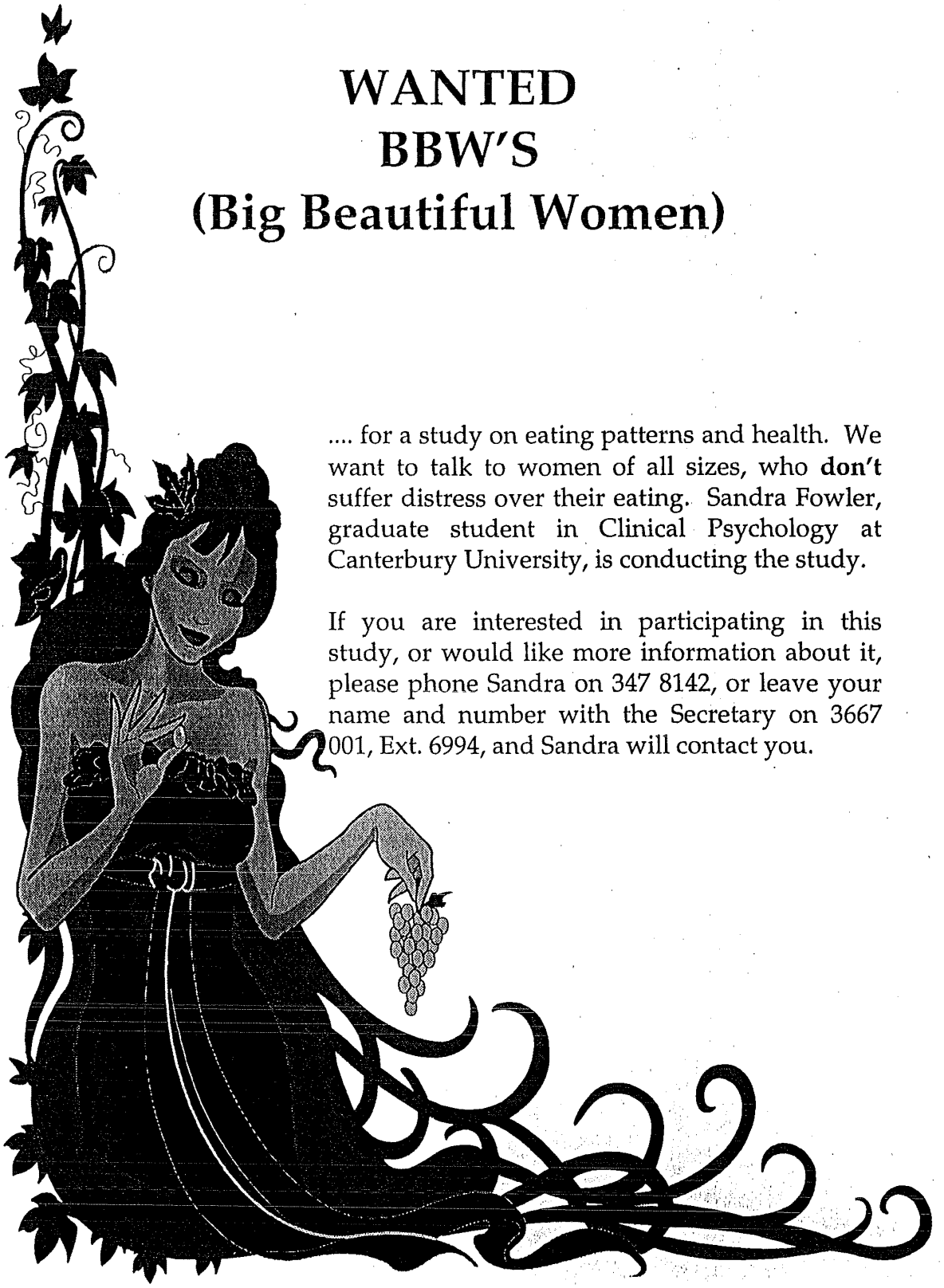
Volunteers are being sought for a study about binge eating, or compulsive eating. We are interested in learning more about women who have strong, sometimes uncontrollable urges to eat. We are most interested in women who binge, but do not purge. Sandra Fowler, graduate student in Clinical Psychology at Canterbury University, is conducting the study.

If you are interested in participating in this study, or would like more information about it, please phone Sandra on 3478142 , or leave your name and number with the secretary on 3667001, ext. 6994, and Sandra will contact you.

Appendix D:

Advertisement seeking women
without eating problems.

WANTED
BBW'S
(Big Beautiful Women)



.... for a study on eating patterns and health. We want to talk to women of all sizes, who **don't** suffer distress over their eating. Sandra Fowler, graduate student in Clinical Psychology at Canterbury University, is conducting the study.

If you are interested in participating in this study, or would like more information about it, please phone Sandra on 347 8142, or leave your name and number with the Secretary on 3667 001, Ext. 6994, and Sandra will contact you.

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Eating Study
Sandra, 3478 142

Appendix E:

Diagnostic Interview for Genetic Studies, modified.

FOLLOW-UP STUDY

Diagnostic Interview for Genetic Studies

Version 1.0
Original by the NIMH Diagnostic Centers for Psychiatric Linkage Studies

Modified by PF Sullivan, CM Bulik, & JL Fear
Christchurch, New Zealand, July 1994

ID Number ☐☐☐

Interviewer _____

Date ☐☐☐☐☐☐☐☐
D D M M M Y Y

Start/end time ___ h ___ m / ___ h ___ m ☐☐☐ Total time (minutes)

Method of interview 0=Direct interview 1=By telephone

CHECKLIST

Jenny's Bit ☐
SRQ collected ☐
Study informed consent ☐
Family tree ☐
Family history ☐
Medical records consent ☐
Permission for future contact ☐

		MALE	FEMALE
1.	INTERVIEWER: Circle sex code.	0	1

2. What is your birth date? ☐☐-☐☐☐-☐☐
D D M O N Y Y

Age ☐☐

		NO	YES	UNK
3.	Were you adopted?	0	1	U

(IF YES:) Clarify nature of adoption. (See manual for further information.)_____

4. In which country were you born?

Record response:_____

5. What is your ethnicity?

1 = European/Pakeha
2 = Maori
3 = Pacific Islander
4 = Other (Specify_____)

6. What is your current marital status?

1 = Married
2 = Separated
3 = Divorced
4 = Widowed
5 = Never married
6 = de facto > 2 years

MARRIAGES ☐☐

6.a) (IF EVER MARRIED:) How many times have you been legally married?

CHILDREN ☐☐

7. How many living children do you have?

8. Are you living alone or with others?

1 = Alone
2 = With partner (for at least one year), but not legally married
3 = In own home with spouse and/or children
4 = In home of parents or children
5 = In home of siblings or non-lineal relatives
6 = In shared home with other relatives or friends
7 = In Residential Treatment Facility
8 = Other, Specify:_____

9. How many years of school did you complete?

Record response:_____

PRESENT

10. *What is your present occupation?* Code occupation using chart below.

Record response: _____

MOST RES

10.a) *What is the most responsible job you have ever held?* Code occupation using chart below.

Record response: _____

HoH

10.b) (IF SUBJECT NOT HEAD OF HOUSEHOLD:) *What is/was the occupation of the head of household during most of their working career?* Code occupation using chart below.

Record response: _____

Managerial and Professional Specialty Occupations

01 = Executive, Administrative, and Managerial Occupations
02 = Professional Specialty Occupations
03 = Writers, Artists, Entertainers, and Athletes

Technical, Sales, and Administrative Support Occupations

04 = Technicians and Related Support Occupations
05 = Sales Occupations
06 = Administrative Support Occupations, Including Clerical

Service Occupations

07 = Private Household Occupations
08 = Protective Service Occupations
09 = Service Occupations, Except Protective and Private Household

Farming, Forestry, and Fishing Occupations

10 = Farm Operators and Managers
11 = Other Farming, Forestry, and Fishing Occupations

Precision Production, Craft, and Repair Occupations

12 = Mechanics and Repairers, Construction Trades, Extractive Occupations, Precision Production Occupations

Operators, Fabricators, and Laborers

13 = Machine Operators, Assemblers, and Inspectors
14 = Transportation and Material-Moving Occupations
15 = Handlers, Equipment Cleaners, Helpers, and Laborers

Other

16 = Armed Services
17 = Disabled
18 = Housewife/Homemaker
19 = Never worked
20 = Full time student
21 = Unemployed/Retired
UU = Unknown/No Answer.

INTERVIEWER: When information from medical records may be relevant to psychiatric condition, record physician name, hospital name, city, state, and treatment dates on the Medical Records Information form at the end of the interview.

	NO	YES	UNK
1. *Have you ever had any serious physical illnesses or medical problems?*	0	1	U

(IF YES:) *Specify:* _____

_____

_____

_____

_____

2. *How many times have you been in a hospital overnight including surgery?* (exclude uncomplicated pregnancies) TIMES [ ][ ]

	Year	Time in Hospital	Description of Problem	Name of Hospital	Hospital Location
2.a)	_____	_____	_____	_____	_____
2.b)	_____	_____	_____	_____	_____
2.c)	_____	_____	_____	_____	_____
2.d)	_____	_____	_____	_____	_____

3. *Have you had any of the following conditions:*

	NO	YES	YEAR OF ONSET	NOTES
3.a) *Thyroid or Other Hormonal Disorders?*	0	1	_____	_____

	NO	YES	YEAR OF ONSET	NOTES
3.c) *Ulcers or Other Bowel Diseases?*	0	1	____	_____
(IF YES:)				
3.c.1) *Peptic Ulcers*	0	1	____	_____
3.c.2) *Crohn's Disease*	0	1	____	_____
3.c.3) *Ulcerative Colitis*	0	1	____	_____
3.d) *Vitamin Deficiency?*	0	1	____	_____
3.e) *Learning Disabilities/ Hyperactivity?*	0	1	____	_____
3.g) Missed menstrual periods for 3 months (when not pregnant or if never began menstruating)	0	1	____	_____
3.h) Osteoporosis or pathological fracture (told by Doctor)	0	1	____	_____

	NO	YES
5. *Are you currently taking any medications (include aspirin and oral contraceptives)?*	0	1

(IF YES:) *Specify medication, dosage, and duration:*

_____

_____

_____

_____

_____

	NO	YES	UNK
6. *Was your own birth or early development abnormal in any way?*	0	1	U

(IF YES:) *Specify:* _____

_____

_____

	NO	YES, CURRENTLY	YES, IN PAST
7. *Have you ever smoked cigarettes on a daily basis?* (IF YES:) *Are you currently smoking?*	0	1	2

PACK YEARS

7.a) (IF YES AND EVER A CIGARETTE SMOKER:) *Estimate number of "pack-years".* [ ][ ]

Record: _____ (#PPD) X _____ (#YRS)

	NO	YES	UNK
8. *Have you ever been pregnant?*	0	1	U

SKIP TO Q.9. <

(IF YES:)

PREGNANCIES

8.a) *How many times have you been pregnant including miscarriages, abortions, and still births?* [ ][ ]

ERVIEWER: Ask first two questions for all children and other questions for logical offspring only.

ar born	Relationship: Biological, Adopted, Stepchild, Other	Outcome: Live birth, Abortion, Miscarriage, Still birth	Birth weight	Birth complications: Maternal - diabetes, hypertension, pre term labour, prematurity, caesarian, etc. Child - small size, illness at birth, etc.
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

		NO	YES	UNK
8.c)	*Have you ever had any severe emotional problems during a pregnancy or within a month of childbirth?*	0	1	U

(IF YES:) *Specify:*_____

_____

_____

		NO	YES	UNK
9.	*Have you ever noticed regular mood changes in the premenstrual or menstrual period?* (more so than other women)	0	1	U

9.a) (IF YES:) *Specify:*_____

_____

_____

10.	*Have you gone through menopause?*	0	1	U
10.a)	(IF YES:) *Have you ever had any severe emotional problems associated with menopause?*	0	1	U

(IF YES:) *Specify:*_____

_____

_____

		AGE
11.	At what age did your menstrual periods start?	☐☐

12a.	Have you ever thought that you were infertile?	0	1	U

record response:_____

_____

12b.	If yes, have you ever received treatment for infertility?	0	1	U

record response:_____

_____

Now I am going to ask you a few more questions about your health.

		Good	Fair	Poor
1.	*Generally, what has your physical health been like?*	1	2	3

Record response:_____

		NO	YES
2.	*Have you ever been bothered by problems with pains in your...*		
2.a)	*abdomen or stomach* (other than during menstruation)?	0	1
2.b)	*back?*	0	1
2.c)	*joints?*	0	1
2.d)	*arms or legs* (other than in the joints)?	0	1
2.e)	*chest?*	0	1
2.f)	*painful sexual intercourse* (other than after childbirth)?	0	1
2.g)	*genitals or rectum* (other than during intercourse)?	0	1
2.h)	*during urination?*	0	1
2.i)	(IF FEMALE:) *painful menstrual periods?*	0	1
2.j)	*headaches?*	0	1
2.k)	*anywhere else?* (IF YES:) *Specify:*_____	0	1

		NO	YES
4.	INTERVIEWER: Do you suspect, based upon subject's responses and medical history, somatization disorder?	0	1

SKIP TO OVERVIEW (PAGE 17) ←

INTERVIEWER: IF LESS THAN 4 CODED YES, (DO NOT COUNT Q.2.j -- headaches), SKIP TO OVERVIEW (PAGE 17).

INTERVIEWER: For each symptom coded YES in Q.2 above, ask the following.

3. *Who did you see about this pain? What did they say you had?*

		IMPAIRMENT CODE
3.a)	*Abdominal pains:* Who seen:_____ What told:_____	0 1 2 3 4
3.b)	*Back pain:* Who seen:_____ What told:_____	0 1 2 3 4
3.c)	*Pain in the joints:* Who seen:_____ What told:_____	0 1 2 3 4
3.d)	*Pain in the arms/legs:* Who seen:_____ What told:_____	0 1 2 3 4
3.e)	*Chest pains:* Who seen:_____ What told:_____	0 1 2 3 4
3.f)	*Painful sexual intercourse:* Who seen:_____ What told:_____	0 1 2 3 4
3.g)	*Genital/rectal pain:* Who seen:_____ What told:_____	0 1 2 3 4
3.h)	*Painful urination:* Who seen:_____ What told:_____	0 1 2 3 4
3.i)	(IF FEMALE:) *Painful menstrual periods:* Who seen:_____ What told:_____	0 1 2 3 4
3.j)	*Headaches:* Who seen:_____ What told:_____	0 1 2 3 4
3.k)	*Other pain* (excluding headaches), *Specify:*_____ Who seen:_____ What told:_____	0 1 2 3 4

INTERVIEWER: IF 4 OR MORE ARE CODED 4 (DO NOT COUNT Q.3.j -- Headaches), SKIP TO Q.5.

3.1) **(IF 4 OR MORE ARE CODED 3 OR 4:) Probe for age of onset, duration of problems, number of contacts with medical personnel. Note whether complaints are limited to discrete periods of medically explainable illness.**

Record response:_____

_____

_____

4. **INTERVIEWER: Do you suspect, based upon subject's responses and medical history, somatization disorder?**

NO	YES
0	1

SKIP TO OVERVIEW (PAGE 17) (PAGE 17)

IMPAIRMENT CODES
0 = None. 1 = Yes, mild (never saw physician/never took medication/ did not interfere with usual activities). 2 = Yes, always secondary to alcohol or drug use. 3 = Yes, always part of medically explained physical disorder. 4 = Yes, medically unexplained.

ONS AGE

How old were you the first time you had any of the problems like (Review all items coded 2, 3, or 4 in Q.3 above)?

REC AGE

. *How old were you the last time you had any of these problems?*

. *Have you ever been bothered by any stomach or digestive problems such as:*

IMPAIRMENT CODE

7.a) *vomiting or regurgitation of food (when not pregnant)?*
Who seen:_____ What told:_____ 0 1 2 3 4

7.b) *nausea (other than motion sickness)?*
Who seen:_____ What told:_____ 0 1 2 3 4

7.c) *excessive gas or bloating of your stomach or abdomen?*
Who seen:_____ What told:_____ 0 1 2 3 4

7.d) *loose bowels or diarrhea?*
Who seen:_____ What told:_____ 0 1 2 3 4

7.e) *three or more foods making you sick?*
Who seen:_____ What told:_____ 0 1 2 3 4

INTERVIEWER: IF Q.7.a-e ALL CODED 0 OR 1, SKIP TO OVERVIEW (PAGE 17).

ONS AGE

8. *How old were you the first time you had any of the problems like* (Review all items coded 2, 3, or 4 in Q.7 above)?

REC AGE

9. *How old were you the last time you had any of these problems?*

IMPAIRMENT CODES
0 = None. 1 = Yes, mild (never saw physician/never took medication/ did not interfere with usual activities). 2 = Yes, always secondary to alcohol or drug use. 3 = Yes, always part of medically explained physical disorder. 4 = Yes, medically unexplained.

10. *Have you ever had any neurological problems such as:*

IMPAIRMENT CODE

10.a) *temporary blindness in one or both eyes lasting several seconds or more?*
Who seen:_____ What told:_____ 0 1 2 3 4

10.b) *double vision?*
Who seen:_____ What told:_____ 0 1 2 3 4

10.c) *completely losing your hearing for a few seconds or longer?*
Who seen:_____ What told:_____ 0 1 2 3 4

10.d) *being paralyzed, where you could not move a part of your body for at least a few minutes?*
Who seen:_____ What told:_____ 0 1 2 3 4

10.e) *periods of weakness where you could not lift or move things you could normally lift or move?*
Who seen:_____ What told:_____ 0 1 2 3 4

10.f) *trouble walking?* (balance or coordination problems)
Who seen:_____ What told:_____ 0 1 2 3 4

10.g) *being unable to urinate or having difficulty urinating for 24 hours or longer or having to be catheterized* (other than after childbirth or surgery)?
Who seen:_____ What told:_____ 0 1 2 3 4

10.h) *having a lump in your throat that made it difficult to swallow* (other than when you feel like crying)?
Who seen:_____ What told:_____ 0 1 2 3 4

10.i) *having a seizure or convulsion* (where you had staring spells or were unconscious and your body jerked)?
Who seen:_____ What told:_____ 0 1 2 3 4

10.j) *being unconscious or fainting* (not seizures)?
Who seen:_____ What told:_____ 0 1 2 3 4

10.k) *amnesia for a period of several hours or days where you could not remember afterwards anything that happened?*
Who seen:_____ What told:_____ 0 1 2 3 4

INTERVIEWER: IF Q.10 ALL CODED 0 OR 1, SKIP TO Q.13

ONS AGE

11. *How old were you the first time you had any of the problems like* (Review all items coded 2, 3, or 4 in Q.10 above)? [ ][ ]

REC AGE

12. *How old were you the last time you had any of these problems?* [ ][ ]

IMPAIRMENT CODES

0 = None.
1 = Yes, mild (never saw physician/never took medication/ did not interfere with usual activities).
2 = Yes, always secondary to alcohol or drug use.
3 = Yes, always part of medically explained physical disorder.
4 = Yes, medically unexplained.

13. *Have you ever been bothered by problems such as:* — IMPAIRMENT CODE

13.a) *feeling that your sex life was not very important?*
Who seen:_____ What told:_____ 0 1 2 3 4

13.b) *having sexual difficulties?*
Who seen:_____ What told:_____ 0 1 2 3 4

(IF YES:)

13.b.1) (IF MALE:) *impotence?*
Who seen:_____ What told:_____ 0 1 2 3 4

13.b.2) (IF FEMALE:) *anorgasmia?*
Who seen:_____ What told:_____ 0 1 2 3 4

INTERVIEWER: FOR MALE SUBJECTS, SKIP TO Q.14.

13.c) (Code from Q.3.i on page 12 without asking.) Painful menstruation?
Who seen:_____ What told:_____ 0 1 2 3 4

13.d) *excessive menstrual bleeding* (not within two years of menopause)?
Who seen:_____ What told:_____ 0 1 2 3 4

13.e) *having irregular menstrual periods?*
Who seen:_____ What told:_____ 0 1 2 3 4

13.f) *vomiting throughout a pregnancy or being hospitalized for vomiting during pregnancy?*
Who seen:_____ What told:_____ 0 1 2 3 4

INTERVIEWER: IF Q.13 ALL CODED 0 OR 1, SKIP TO Q.16

14. *How old were you the first time you had any problems like* (Review all items coded 2, 3, or 4 in Q.13 above)? — ONS AGE [ ][ ]

15. *How old were you the last time you had any of these problems?* — REC AGE [ ][ ]

IMPAIRMENT CODES
0 = None. 1 = Yes, mild (never saw physician/never took medication/ did not interfere with usual activities). 2 = Yes, always secondary to alcohol or drug use. 3 = Yes, always part of medically explained physical disorder. 4 = Yes, medically unexplained.

IMPAIRMENT CODE

16. *Have you ever been bothered by any general problems such as:*

16.a) *shortness of breath when you had not exerted yourself?*
Who seen:_____ What told:_____ 0 1 2 3 4

16.b) *temporary blurred vision not due to needing/changing glasses?*
Who seen:_____ What told:_____ 0 1 2 3 4

16.c) *losing your voice for 30 minutes or more and only being able to whisper?*
Who seen:_____ What told:_____ 0 1 2 3 4

16.d) *fainting spells where you felt weak, dizzy, and passed out?*
Who seen:_____ What told:_____ 0 1 2 3 4

16.e) *your heart beating so hard you could feel it pounding in your chest?*
Who seen:_____ What told:_____ 0 1 2 3 4

16.f) *dizziness?*
Who seen:_____ What told:_____ 0 1 2 3 4

16.g) *feeling sickly for most of your life?*
Who seen:_____ What told:_____ 0 1 2 3 4

INTERVIEWER: IF Q.16 ALL CODED 0 or 1, SKIP TO OVERVIEW (PAGE 17).

ONS AGE

17. *How old were you the first time you had any of the problems like* (Review all items coded 2, 3, or 4 in Q.16 above)? [ ][ ]

REC AGE

18. *How old were you the last time you had any of these problems?* [ ][ ]

YEARS

19. *How many years have you been having these problems?* [ ].[ ]

IMPAIRMENT CODES

0 = None.
1 = Yes, mild (never saw physician/never took medication/ did not interfere with usual activities).
2 = Yes, always secondary to alcohol or drug use.
3 = Yes, always part of medically explained physical disorder.
4 = Yes, medically unexplained.

OVERVIEW OF PSYCHIATRIC DISTURBANCE

		NO	YES	UNK
1.	*Have you ever had any emotional problems or a period when you were not feeling or behaving like your normal self?*	0	1	U
2.	*Have you ever seen any professional for emotional problems, your nerves, or the way you were feeling or acting?*	0	1	U

(IF YES:) AGE

2.a) *How old were you when you first saw someone for (Emotional problem)?* ☐☐

3.	*Has there ever been a period of time when you were unable to work, go to school, or take care of other responsibilities because of psychiatric or emotional reasons?*	0	1	U
4.	*Have you ever taken medications for your nerves or any emotional or mental problems?*	0	1	U

INTERVIEWER: Circle all individual medications that apply.

Antidepressants:	Paroxetine, Fluoxetine, Maprotiline, Mianserin, Nortriptyline, Amitriptyline, Clomipramine, Doxepin, Protriptyline, Dothiepin, Imipramine, Desipramine, Trimipramine, Amoxapine.
MAOI's:	Phenelzine, Tranylcypromine, Moclebamide.
Sedatives/Hypnotics/ Minor Tranquilizers:	Amylobarbitone, Phenobarbitone, Quinalbarbitone, Loprazolam, Temazepam, Triazolam, Midazolam, Nitrazepam, Lormetazepam, Flunitrazepam, Diazepam, Clonazepam, Lorazepam, Chlordiazepoxide.
Antipsychotics:	Droperidol, Haloperidol, Loxapine, Fluspirilene, Pimozide, Thioridazine, Fluphenazine, Chlorpromazine, Pericyazine, Methotrimeprazine, Pipothiazine, Trifluoperazine, Prochlorperazine, Perphenazine, Flupenthixol, Thiothixene, Tetrabenazine, Clozapine.
Stimulants:	Methylphenidate, Tenuate.
Antimanic:	Lithium, Clonayepam, Carbamazepine, Valproic acid (valproate).
Antiparkinsonian:	Benztropine, Orphenadrine, Procyclidine, Bromocriptine.

(IF OTHERS:) *Specify:*_____

_____

_____

INTERVIEWER: IF Q.1 - Q.4 ARE ALL NO, SKIP TO Q.6.

	NO	YES	UNK
5. *Have you ever been admitted to a hospital because of problems with your mood, emotions, or how you were acting?*	0	1	U

(IF YES:)

5.a) *How many times?* HOSPITALIZATIONS [ ][ ]

5.c) *How old were you at the time of your first psychiatric hospitalization?* AGE [ ][ ]

INTERVIEWER: IF SUBJECT REPORTED ANY EMOTIONAL PROBLEMS (Q.1-Q.5), SKIP TO Q.7

	NO	YES	UNK
6. *Was there ever a time when you or someone else thought you needed professional help because of your feelings or the way you were acting?*	[0]	1	U

SKIP TO MAJOR DEPRESSION (PAGE 23). <

7. *Please tell me more about these periods we've just discussed.*

INTERVIEWER: Use Course of Illness Timeline (page 21) to summarize history of psychopathology and treatment.

EATING BEHAVIOR ED.1

Next, I'd like to ask some specific questions about your height and weight.

1. *How tall are you NOW? (meters)* . . . . . ☐.☐☐

2. *How much do you weigh NOW? (kilograms)* . . . . . ☐☐☐

3. *Ideally, how much would you LIKE to weigh? (kilograms)* . . . . . ☐☐☐

4.a *What was the LEAST you weighed since reaching your adult height? (not including physical illness) (kilograms)* . . . . . ☐☐☐

4.b *How old were you at this weight?* . . . . . ☐☐

5.a *What was the MOST you weighed since reaching your adult height? (not including pregnancy) (kilograms)* . . . . . ☐☐☐

5.b *How old were you at this weight?* . . . . . ☐☐

6.a *Have you ever gained or lost more than ONE STONE (=14 pounds, =6.4 kg) in a period of less than six months? (Exclude pregnancy & illness) (0=No, 1=Yes)* . . . . . ☐

6.b *(IF YES) How many times? (Exclude pregnancy & physical illness)* . . . . . ☐☐

---

7. *Have you ever DIETED, that is, restricted food intake because of weight concerns? (0=No, 1=Yes)* . . . . . ☐

(IF YES) At what age did you FIRST diet? . . . . . ☐☐

(IF YES) What led to this? _____

(IF YES) At what age did you LAST diet? . . . . . ☐☐

---

8. *Have you ever had an eating BINGE, that is, when you ate an unusually large amount of food in a short period of time? (0=No, 1=Yes)* . . . . . ☐

(IF YES) At what age did you FIRST have a binge? . . . . . ☐☐

(IF YES) What led to this? _____

(IF YES) Think of the 3 month period when you binged the most...How many binges did you usually have each week? (Code the AVERAGE per week) . . . . . ☐☐

(IF EVER ≥ 2/week) At what age did you FIRST binge twice a week on average? . . . ☐☐

(IF EVER ≥ 2/week) At what age did you LAST binge twice a week on average? . . . ☐☐

9. *Have you ever made yourself VOMIT to get rid of food you had eaten? (0=No, 1=Yes)* . . . . . ☐

(IF YES) At what age did you FIRST vomit for this reason? . . . . . ☐☐

(IF YES) What led to this? _____

(IF YES) At what age did you begin to vomit REGULARLY? (ie, at least once a week for 3 months) . . . . . ☐☐

(IF YES) At what age did you LAST make yourself vomit regularly? . . . . . ☐☐

10. *Have you ever EXERCISED to control weight, to burn off calories, or to change your body's shape? (0=No, 1=Yes)* . . . . . ☐

(IF YES) At what age did you FIRST exercise for this reason? . . . . . ☐☐

(IF YES) At what age did you begin to exercise REGULARLY? (ie, more days than not for 3 months) . . . . . ☐☐

(IF YES) At what age did you LAST exercise regularly? . . . . . ☐☐

11. *Have you ever used LAXATIVES to control weight, get rid of food you had eaten, or to change your body's shape? (0=No, 1=Yes)* . . . . . ☐

(IF YES) At what age did you FIRST use laxatives for this reason? . . . . . ☐☐

(IF YES) What led to this? _____

(IF YES) At what age did you begin to use laxatives REGULARLY? (ie, at least once a week for 3 months) . . . . . ☐☐

(IF YES) At what age did you LAST use laxatives regularly? . . . . . ☐☐

12. *Have you ever used PILLS for weight loss or appetite control? (0=No, 1=Yes)* . . . . . ☐

(IF YES) At what age did you begin to use pills REGULARLY? (ie, at least once a week for 3 months; code 00 if never) . . . . . ☐☐

(IF YES) At what age did you LAST use pills regularly? . . . . . ☐☐

13. *Have you ever used DIURETICS or water pills for weight loss?* ☐
(0=No, 1=Yes) . . . . . .

(IF YES) At what age did you begin to use diuretics REGULARLY? ☐☐
(ie, at least once a week for 3 months; code 00 if never) . . . . . .

At what age did you LAST use diuretics regularly? . . . . . ☐☐

---

14. *Have you ever used a chemical to make yourself vomit?* ☐
(0=No, 1=Yes) . . . . . .

(IF YES) At what age did you begin to use chemical s REGULARLY? ☐☐
(ie, at least once a week for 3 months; code 00 if never) . . . . . .

(IF YES) At what age did you LAST use chemical regularly? . . . . . ☐☐

INTERVIEWER: *COMPLETE IF HAS RECENTLY BINGED OR PURGED.*

A) *BINGING*
Number of LARGE or OBJECTIVE binges in the last two weeks . . . . . ☐☐

B) *PURGING — By Vomiting*
Number of EPISODES of vomiting in last two weeks . . . . . ☐☐

C) *PURGING — By Other Methods*
Number of EPISODES of purging by other methods in the last two weeks . . . . . ☐☐

INTERVIEWER: *ASK ALL SUBJECTS.*

D) *"FOOD RESTRICTION is when you diet, count calories or restrict what you eat. On how many days in the last 14 did you restrict?"* . . . . . ☐☐

(IF ANY) *"On the days you restricted, how strong or intense were the urges?"* . . . . . ☐
0=Absent, 1=Mild, 2=Moderate, 3=Severe

E) *"BODY DISSATISFACTION is when you feel unhappy or dissatisfied with your body's shape, weight, or appearance. On how many days in the last 14 did you feel this way?"* ☐☐

(IF ANY) *"On the days you felt this way, how strong or intense were the feelings?"* . . . ☐
0=Absent, 1=Mild, 2=Moderate, 3=Severe

Have you ever had a time when you weighed much less than other people thought you should weigh?
(Refer to height and weight data above.)

_____

_____

CRITERION A: Refusal to maintain body weight over a minimal normal weight for height and age; for example, weight loss leading to maintenance of body weight 15% below that expected, or failure to make expected weight gain during period of growth, leading to body weight 15% below that expected.

Height	4'10"	4'11"	5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"
	1.47	1.5	1.52	1.55	1.57	1.6	1.63	1.65	1.68	1.7	1.73	1.75	1.78	1.8	1.83
85% ideal	(For medium frame. Subtract 7 pounds for small frame and add 7 pounds for large frame)														
– kg	39	40	41	43	44	45	46	47	49	51	53	54	55	57	59
– pounds	86	88	91	94	96	99	102	104	109	112	116	119	122	126	129
– stone	6-2	6-4	6-7	6-10	6-12	7-1	7-4	7-6	7-11	8-0	8-4	8-7	8-10	9-0	9-3

1=false, 2=subthreshold, 3=true . . . . . ☐

(skip to Bulimia Nervosa if 1)

At that time, were you very afraid that you could become fat? How would you have felt if you gained a kilogram?

_____

_____

CRITERION B: Intense fear of gaining weight or becoming fat, even though underweight.
1=false, 2=subthreshold, 3=true . . . . . ☐

At your lowest weight, how did you think you looked? Did you still feel too fat or that any part of your body was too fat?

_____

_____

CRITERION C: Disturbance in the way in which one's body weight, size, or shape is experienced; for example, the person claims to "feel fat" even when emaciated, believes that one area of the body is "too fat" even when obviously underweight.
1=false, 2=subthreshold, 3=true . . . . . ☐

Before this time, were you having menstrual periods? Did they stop? For how long? Were you taking birth control pills or hormones? (Did this regulate your periods?)

_____

_____

CRITERION D: Absence of at least 3 consecutive menstrual cycles when otherwise expected to occur (primary or secondary amenorrhea). A woman is considered amenorrheic if her periods occur only following hormone administration.
1=false, 2=subthreshold, 3=true . . . . . ☐

CRITERIA A, B, C, & D ARE CODED "3" . . . . . ☐

(skip to Bulimia Nervosa if 1)
(continue if 2 or 3)

21

ıring the past month, have you had (AN symptoms)? (1=false, 3=true) . . . . . ☐

)w old were you when you FIRST began to have (AN symptoms)? . . . . . ☐☐

)w old were you when you LAST had (AN symptoms)? . . . . . ☐☐

t the worst, for how many months did you have (AN symptoms)? . . . . . ☐☐☐

/hen you had (AN symptoms), did you...

— see your GP? . . . . . ☐

*— take medication? Specify*_____ . . . . . ☐

— have counselling or therapy for AN? . . . . . ☐

— undergo hospitalization? . . . . . ☐

*— (have any other treatment)? Specify*_____ . . . . . ☐

(1=No Treatment, 2=Partial or Inadequate Treatment, 3=Extensive Treatment)

When you had (AN symptoms), did you do things to avoid gaining weight, like...

— make yourself vomit? . . . . . ☐

— use laxatives? . . . . . ☐

— use diuretics or water pills? . . . . . ☐

— use emetics? . . . . . ☐

— use diet pills? . . . . . ☐

(1=No, 2=Less than weekly, 3=Weekly or more often)

During the past five years, how much of the time have you had (full AN symptoms)? . . . . . ☐

1=Not at all (0%) *2=Rarely (5-10%)* *3=Significant minority (20-30%)*

4=About half (50%) *5=Significant majority (70-80%)* *6=Almost all (90-100%)*

Has there been a time in your life when you had eating binges during which you ate a lot of food in a short period of time? (Probe for description of amount and frequency.)
DESCRIBE: _____

CRITERION A: **Recurrent episodes of binge eating.**
(Binge: rapid consumption of a large food amount in a short time period)
(Large: not just to the person but to someone in her peer group)
1=false, 2=subthreshold, 3=true . . . . . ☐
(skip to ED-NOS if 1)

If you think of the ~~three~~ four month period when you were binging the most, how many large binges were you having each week? _____

CRITERION D: **≥2 objective binges per week for a 3 month period.**
1=false, 2=subthreshold, 3=true . . . . . ☐

During these binges, did you feel that your eating was out of control?

CRITERION B: **A feeling of lack of control over eating behaviour during the eating binges.**
1=false, 2=subthreshold, 3=true . . . . . ☐

During that time, did you do things to counteract the binges like...

— *make yourself vomit?* . . . . . ☐
— *use laxatives?* . . . . . ☐
— *use diuretics or water pills?* . . . . . ☐
— *use a chemical to make yourself vomit?* . . . . . ☐
— *use diet pills?* . . . . . ☐
— *maintain a strict diet?* . . . . . ☐
— *exercise excessively?* . . . . . ☐
— *fast?* . . . . . ☐

(1=No, 2=Less than weekly, 3=Weekly or more often)

CRITERION C: **The person regularly engages in either self-induced vomiting, use of laxatives or diuretics, strict dieting or fasting, or vigorous exercise in order to prevent weight gain.**
1=false, 2=subthreshold, 3=true . . . . . ☐

During this time, were you a lot more concerned about your weight and body shape than most people? How would you feel if you had gained a kilogram?

CRITERION E: **Persistent overconcern with body shape and weight.**
1=false, 2=subthreshold, 3=true . . . . . ☐

CRITERIA A, B, C, D, & E ARE CODED "3" . . . . . ☐
(skip to next module if 1)
(continue if 2 or 3)

Criteria A, B, D, but NOT C (skip to BED)

Criteria A, B, and D are met, but not criterion C

(1) During a binge, do you: **(tick)**
-eat more rapidly than normal?
-eat until you feel uncomfortably full?
-eat large amounts of food when you don't feel physically hungry?
-eat alone because you are embarressed about how much you are eating?

-After binging, how do you feel about yourself?
(disgusted, depressed, or very guilty?)

Criterion B - the binge eating episodes are associated with three (or more) of the above

3 of (1) present? YES/NO

(3) How do you feel about your binge eating?

Criterion C - marked distress

YES/NO

(4) Over the last 6 months, on how many days in a week, on average, do you binge eat?

Criterion D - 2 days per week for 6 mths
YES/NO

If all of above met, subject meets BED criteria

(5) How old were you when you first began to have (full BED sx)?

(6) At the worst, for how many months did you have (full BED sx)?

(7) Have you ever sought help from anyone for BED?

During the past month, have you had (BN symptoms)? (1=false, 3=true) . . . . . ☐

How old were you when you FIRST began to have (BN symptoms)? . . . . . ☐☐

How old were you when you LAST had (BN symptoms)? . . . . . ☐☐

At the worst, for how many months did you have (BN symptoms)? . . . . . ☐☐

When you had (BN symptoms), did you...

— see your GP? . . . . . ☐

*— take medication? Specify*_____ . . . . . ☐

— have counselling or therapy for BN? . . . . . ☐

— undergo hospitalization? . . . . . ☐

*— (have any other treatment)? Specify*_____ . . . . . ☐

(1=No Treatment, 2=Partial or Inadequate Treatment, 3=Extensive Treatment)

During the past five years, how much of the time have you had (BN symptoms)? . . . . . ☐

1=Not at all (0%) *2=Rarely (5-10%)* *3=Significant minority (20-30%)*
4=About half (50%) *5=Significant majority (70-80%)* *6=Almost all (90-100%)*

***(INTERVIEWER:** Has the person met criteria for <u>both</u> AN and BN at the same time? Ask further questions if necessary and record details.)*

_____

_____

Met criteria for simultaneous full disorder AN and BN in lifetime
(1=false, 2=possible, 3=true) . . . . . ☐

Met criteria for simultaneous full disorder AN and BN in past month
(1=false, 2=possible, 3=true) . . . . . ☐

Age when first met criteria for simultaneous AN and BN . . . . . ☐☐

Age when last met criteria for simultaneous AN and BN . . . . . ☐☐

Eating Disorder - Not Otherwise Specified

INTERVIEWER: *Skip to the TIMELINE if the criteria for AN or BN are currently met. Code the following from data already supplied. ED-NOS is either:*

1. *a person of average weight who does not have binge eating episodes, but frequently engages in self-induced vomiting for fear of gaining weight.* ☐
2. *OR all of the features of anorexia nervosa in a female except the absence of menses.* ☐
3. *OR all of the features of bulimia nervosa except the frequency of binge eating episodes.* ☐
4. *OR all of the features of bulimia nervosa except for the presence of regular purging behavior.* ☐

(1=false, 2=subthreshold, 3=true)

(IF ANY ED-NOS CRITERION IS CODED 3)

Age of onset of ED-NOS ☐☐

Age most recently met ED-NOS criteria ☐☐

Timeline

- do this section ONLY for those with lifetime AN, BN, or ED-NOS or if ticked _____
- probe for life events from onset of ED and record.
- note the presence of ED treatment
- for each year from ED onset to now. note the presence of 3 months of low weight. amenorrhea. binging twice/week, and purging once/week at any point in that year.

			In that year, was there a 3/12 period when...			
Year	Events	ED Tx?	Wt<85%	Amen 3/12?	B≥2x-3/12?	P≥1x-3/12?
1975						
1976						
1977						
1978						
1979						
1980						
1981						
1982						
1983						
1984						
1985						
1986						
1987						
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

ID No: | | | |

lave you ever had:

	yes	no
an **uncontrollable desire** to eat a certain food or type of food?	☐	☐
strong (intense) urges to eat **specific** foods?	☐	☐
a **craving** for food?	☐	☐

If you answered "yes" to ANY of the above 3 questions:

4. Please describe the foods that you have strong urges to eat

5. Please describe the time that strong urges to eat specific foods occur — 6am-12 noon ☐ | 12 noon-3pm ☐ | 3pm-6pm ☐ | 6pm-10pm ☐ | 10pm-6am ☐ | no particular time ☐

6. Please describe the situation you are most likely to find yourself in — when you get home from work/school ☐ | when the children are out ☐ | when preparing food ☐ | when watching TV ☐ | when you are bored or having difficulty with work ☐ | no particular situation ☐

7. At the worst, how strong are these urges to eat specific foods? — extremely strong ☐ | strong ☐ | moderate ☐ | not very strong ☐ | not at all strong ☐

8. How often do you experience a strong urge to eat specific foods? — once a month or less ☐ | once a fortnight ☐ | once a week ☐ | 2-3 times a week ☐ | every day ☐ | several times a day ☐

9. If you eat the food is the speed at which you eat — much faster than normal ☐ | somewhat faster than normal ☐ | as normal ☐ | slower than normal ☐ | much slower than normal ☐

10. How easy is it to resist this strong urge to eat specific foods? — very easy ☐ | moderately easy ☐ | somewhat difficult ☐ | very difficult ☐ | impossible ☐

11. If the food you have a strong urge to eat is unavailable do you feel anxious/uncomfortable? ..... extremely so ☐ | moderately so ☐ | somewhat/ a little ☐ | not at all ☐ | not if other foo is available ☐

12. How often are your strong urges to eat specific foods related to your mood? ..... always ☐ | usually ☐ | sometimes ☐ | occasionally ☐ | rarely/never ☐

13. **(If at all:)**
What is your mood before and after you eat?

14. How often are your strong urges to eat specific foods related to physical complaints such as headaches, migraines, tiredness? ..... always ☐ | usually ☐ | sometimes ☐ | occasionally ☐ | rarely/never ☐

15. **(If at all:)**
What is the complaint and its relation to your craving?

16. How often are your strong urges to eat specific foods related to your menstrual cycle? ..... always ☐ | usually ☐ | sometimes ☐ | occasionally ☐ | rarely/never ☐

17. **(If ever pregnant:)**
What was the relationship between food cravings and your pregnancy? ..... only craved when pregnant ☐ | only craved when not ☐ | both ☐

18. How old were you when you first had a strong urge to eat specific foods? ..... ☐☐

19. How old were you when you last had a strong urge to eat specific foods? ..... ☐☐

20. Have you experienced a strong urge to eat specific foods within the past 3 months? ..... yes ☐ | no ☐

	NO	YES
5. INTERVIEWER: Is the current episode also the most severe episode?	0	1

MOST SEVERE EPISODE

During the most severe episode:

6. *Did you have a loss of appetite or did your appetite greatly increase?*

0 = No
1 = Yes, decreased
2 = Yes, increased
3 = Yes, mixture
U = Unknown/ No Info.

NO	LOSS	GAIN	UNK
0	1	2	U

6.a) *Did you lose/gain weight when you were not trying to?*

(IF YES:)

KILOS

6.b) *What was your weight before the loss/gain?*

KILOS

6.c) *What was your weight after the loss/gain?*

WEEKS

6.d) *Over what period of time did you lose/gain this amount of weight?*

Now I'm going to ask you some questions about your mood.

	NO	YES
1. *Have you ever had a period of at least one week when you were bothered most of the day, nearly every day, by feeling depressed, sad, down, low?*	0	1
1.a) (IF NO:) *By feeling irritable?*	0	1
2. *Have you ever had a period of at least one week when you did not enjoy most things, even things you usually like to do?*	0	1

SKIP TO MANIA/HYPOMANIA (PAGE 32). ←

	NO	DEP MOOD	ANHE-DONIA
3. *Have you been feeling that way recently (i.e., for at least one week during the past 30 days)?* (IF YES): INTERVIEWER: Determine if depressed mood or anhedonia only.	0	1	2

3.a) (IF YES:) *How long have you felt this way?* WEEKS ☐☐

4. *Think about the most severe period in your life when you were feeling depressed or unable to enjoy things. When did it begin?* ☐0 ☐1 - ☐☐☐ - ☐☐
D D M O N Y

Record response: _____

_____

AGE ☐☐

4.a) INTERVIEWER: Compute age.

4.b) *How long did that period last?* WEEKS ☐☐☐

	DEP MOOD	ANHE-DONIA
4.c) INTERVIEWER: Code for either depressed mood or anhedonia only.	1	2

		MOST SEVERE EPISODE		
		NO	YES	UNK
7.	*Did you have trouble sleeping or were you sleeping more than usual?* (IF YES:)	0	1	U
	7.a) *Were you unable to fall asleep?*	0	1	U
	7.b) (IF YES:) *Was this for at least one hour?*	0	1	U
	7.c) *Were you waking up in the middle of the night and not able to go back to sleep?*	0	1	U
	7.d) *Were you waking up too early in the morning?*	0	1	U
	7.e) (IF YES:) *Was this at least one hour earlier than usual?*	0	1	U
	7.f) *Were you sleeping much more than usual?*	0	1	U
8.	*Were you so fidgety or restless that other people could have noticed (e.g., pacing or wringing hands)?*	0	1	U
9.	*Were you moving or speaking so slowly that other people could have noticed?*	0	1	U
10.	*Were you less interested in things or less able to enjoy sex or other pleasurable activities?*	0	1	U
11.	*Were you feeling a loss of energy or more tired than usual?*	0	1	U
12.	*Were you feeling guilty or that you were a bad person?*	0	1	U
13.	*Were you feeling that you were a failure or worthless?*	0	1	U
14.	*Were you having difficulty thinking, concentrating, or making decisions?*	0	1	U
15.	*Were you frequently thinking about death, or wishing you were dead, or thinking about taking your life?*	0	1	U
16.	*Did you actually try to harm yourself?*	0	1	U

MOST SEVERE EPISODE

17. INTERVIEWER: Enter number of boxes with at least one YES response in Q.6-16.

BOXES [ ]

INTERVIEWER: IF LESS THAN THREE, SKIP TO MANIA/HYPOMANIA (PAGE 32).

	NO	YES	UNK
18. *Were the symptoms* (Review symptoms in Q.6-16 plus depressed mood) *present nearly every day for at least a two-week period?*	0	1	U

INTERVIEWER: At least five symptoms are required for a "YES" response (DSM III-R criteria).

	AM	PM	NO DIF
19. *Did you tend to feel worse in the morning or in the evening?*	0	1	2

	NO	YES	UNK
20. *During this episode, did you have beliefs or ideas that you later found out were not true?*	0	1	U

(IF YES:)

Specify: _____

	NO	YES	UNK
20.a) *Did these beliefs occur either just before this depression or after it cleared?*	0	1	U

DAYS

20.b) (IF YES:) *How long did they last?* [ ][ ][ ]

	NO	YES	UNK
21. *Did you see or hear things that other people could not see or hear?*	0	1	U

(IF YES:)

Specify: _____

	NO	YES	UNK
21.a) *Did these visions or voices occur either just before this depression or after it cleared?*	0	1	U

DAYS

21.b) (IF YES:) *How long did they last?* [ ][ ][ ]

		MOST SEVERE EPISODE		
		NO	YES	UNK
22.	(IF YES TO Q.20 OR Q.21:) INTERVIEWER: Did psychotic symptoms have content that was inconsistent with depressive themes such as poverty, guilt, illness, personal inadequacy or catastrophe?	0	1	U
22.a)	(IF YES:) INTERVIEWER: Was subject preoccupied with psychotic symptoms to the exclusion of other symptoms or concerns?	0	1	U
23.	*Did you seek or receive help from a doctor or other professional for this period of depression?*	0	1	U
24.	*Were you prescribed medication for depression?*	0	1	U
	(IF YES:) *Specify:*			
		NO	YES	UNK
25.	*Did you receive ECT (shock treatments)?*	0	1	U
26.	*During this episode were you hospitalized for depression?*	0	1	U
		DAYS		
26.a)	(IF YES:) *For how long?*			

INTERVIEWER: IF PATIENT WAS HOSPITALIZED TWO DAYS OR MORE, HAD ECT, OR HAD PSYCHOTIC SYMPTOMS, SKIP TO Q.29 AND CODE INCAPACITATION.

MOST SEVERE EPISODE

27. *Was your major responsibility during this episode job, home, school, or something else?*

1 = Job
2 = Home
3 = School
4 = Other

(IF OTHER:) *Specify:* _____

	NO	YES	UNK
28. *Was your functioning (in this role) affected?*	0	1	U

(IF YES:)

Specify: _____

	NO	YES	UNK
28.a) *Did something happen as a result of this? (such as marital separation, absence from work or school, loss of a job, or lower grades)*	0	1	U

(IF YES:) *Specify:* _____

	NO	YES	UNK
28.b) (IF NO TO Q.28.a:) *Did someone comment on your difficulty functioning?*	0	1	U

29. INTERVIEWER: Code based on answers to Q.20,Q.21, and Q.25-28.a.

0 = No Change
1 = Impairment
2 = Incapac.
U = Unknown

Modified RDC IMPAIRMENT: A decrease in <u>quality</u> of the most important role performance (noticeable to others). This usually requires a decrease in the <u>amount</u> of performance; it may be manifested by a person taking ten hours to do what normally may require five hours.

Modified RDC INCAPACITATION: Complete inability to function in principal role for two days, or hospitalized for two or more days, ECT, or delusions or hallucinations present. For example, a housewife is unable to maintain her household duties, or a person stays home from work or from studies.

(IF IMPAIRED OR INCAPAC:)
Specify: _____

MOST SEVERE EPISODE

30. RDC MINOR ROLE DYSFUNCTION:

(IF NO CHANGE IN Q.29:) *Was your functioning in any other area of your life affected?* — NO 0 | YES 1 | UNK U

(IF YES:) *Specify:* _____

31. *Did this episode occur during or shortly after an illness of some kind?* — NO 0 | YES 1 | UNK U

INTERVIEWER: The following illnesses, among others, may be relevant:

Hypothyroidism, CVA, MS, Mono, Hepatitis, Cancer, Parkinson's, HIV, Cushing's or other endocrine illnesses.

(IF YES:) *Specify illness:* _____

INTERVIEWER: IF MALE OR NEVER PREGNANT, SKIP TO Q.33.

32. *Did this episode occur around the time of childbirth?* — NO 0 | YES 1 | UNK U

32.a) (IF YES:) *What was the date of childbirth?* — [ ][ ]-[ ][ ][ ]-[ ][ ] DD MON YY

33. *Did this episode begin shortly after you started taking any prescribed medication?* — NO 0 | YES 1 | UNK U

INTERVIEWER: The following medicines, among others, may be relevant:

Blood Pressure Medicines: Aldomet, Inderal, Propranolol, Reserpine, Serpasil.
Sedatives/Hypnotics: Dalmane, Halcion, Restoril.
Tranquilizers: Ativan, Librium, Serax, Tranxene, Valium.
Heart Medicines: Digitalis, Digoxin.
Steroids: Prednisone.

(IF YES:) *Specify medications:* _____

MOST SZVERE EPISODE

34. *Did this episode begin while you were using street drugs?*

NO 0 YES 1 UNK U

INTERVIEWER: The following drugs, among others, may be relevant:

Amphetamines, Barbiturates, Cocaine, "Downers", Tranquilizers

(IF YES:) *Specify drug and quantity:*

_____
_____
_____

35. *Did this episode follow increased use of alcohol?*

NO 0 YES 1 UNK U

(IF YES:) *Specify:*

_____
_____
_____

36. *Did this episode follow the death of someone close to you?*

NO 0 YES 1 UNK U

(IF YES:) *Specify relationship and date of death:*

_____
_____
_____

INTERVIEWER: If coding current episode and it is not the most severe episode, return to Q.6 and code for Most Severe episode.

If you suspect that the episode just defined (most severe) was precipitated by an organic factor or that it was a grief reaction, attempt to establish another severe episode without such a precipitant.

37. INTERVIEWER: Has there been at least one episode in the person's life that was "clean" (ie. not due to physical illness, uncomplicated bereavement, or drug or alcohol abuse).

NO 0 YES 1 UNK U

38. *Did you have at least one other episode when you were depressed for at least one week and had several of the symptoms you described?*

0 1 U

(IF YES:)

38.a) *When did it begin?*

		-				-		
D	D		M	O	N		Y	Y

38.b) **INTERVIEWER: Symptom checklist may be used as an aid in establishing a second episode. Check each that applies.**

___*Depressed Mood?*
___*Appetite/weight change?*
___*Sleep difficulty?*
___*Change in activity level?* (psychomotor)
___*Fatigue/loss of energy?*
___*Loss of interest/pleasure?*
___*Low self esteem/guilt?*
___*Decreased concentration?*
___*Thoughts of death or suicide?*

SX

38.c) **INTERVIEWER: Enter number of symptoms checked in Q.38.b.** [ ]

	NO	YES	UNK
38.d) *Was it preceded by a medical illness, use of medication/drugs/alcohol, or the loss of a loved one?*	0	1	U

38.e) *Was there a difference in the way you managed your work, school, or household tasks?*

0 = No
1 = Impair.
2 = Incap.
U = Unk

(IF YES:) *Specify:*_____

_____

WEEKS

38.f) *How long did this episode last?* [| |]

	NO	YES	UNK
38.g) *Did you receive any treatment or were you hospitalized during this episode?*	0	1	U

(IF YES:) *Specify treatment:*_____

_____

ONS AGE

39. *How old were you the first time you had an episode of depression like this?* [|]

REC AGE

40. *How old were you the last time you had an episode of depression like this?* [|]

EPISODES

41. *How many separate times have you been depressed like this?* [|]

	NO	YES	UNK
42. *Did you ever feel high or were you overactive following medical treatment for depression?*	0	1	U

(IF YES:) *Describe:* _____

_____

Now I'm going to ask you some other questions about your mood.

	NO	YES	UNK
1.a) *Did you ever have a period when you felt extremely good or high, clearly different from your normal self? (Was this more than just feeling good?)*	0	1	U
1.b) **(IF NO:)** *Did you ever have a period when you were unusually irritable, clearly different from your normal self so that you would shout at people or start fights or arguments?*	0	1	U

1.c) **INTERVIEWER: Probe for description if necessary, using additional probes (e.g., Did you experience increased energy? increased activity? a need for less sleep? increased talkativeness?)**

_____

_____

_____

_____

	NO	YES	UNK
1.d) **(IF YES TO Q.1.a OR Q.1.b:)** *Did this last persistently throughout the day or intermittently for two days or more?*	0	1	U
1.e) **INTERVIEWER: Do you suspect a past or current episode from subject's responses, behavior, or other information?**	[0]	1	U

SKIP TO HYPOMANIA SCREEN (Q.35, PAGE 39). ←

2. *Have you been feeling this way recently (i.e., during the past 30 days)?* 0 1 U

(IF YES:)

2.a) *How long have you felt this way?* **(If less than one week, code DAYS.)** DAYS [ ] OR WEEKS [ ][ ][ ]

3. *Think about the most extreme period in your life when you were feeling unusually good, high, or irritable. When did it begin?* [0][1] - [ ][ ][ ] - [ ][ ]
D D M O N Y Y

AGE [ ][ ]

3.a) **INTERVIEWER: Compute age.**

3.b) *How long did that period last?* **(If less than one week, code DAYS.)** DAYS [ ] OR WEEKS [ ][ ][ ]

		NO	YES
4.	**INTERVIEWER:** Is the Current Episode also the most severe episode?	0	1

During the most severe episode:

MOST SEVERE EPISODE

		IRR	ELA
5.	**INTERVIEWER:** Specify irritable or elated mood.	1	2

		NO	YES	UNK
6.	*Were you more active than usual either sexually, socially, or at work, or were you physically restless?*	0	1	U
7.	*Were you more talkative than usual or did you feel pressure to keep on talking?*	0	1	U
8.	*Did your thoughts race or did you talk so fast that it was difficult for people to follow what you were saying?*	0	1	U
9.	*Did you feel you were a very important person, or that you had special powers, plans, talents, or abilities?*	0	1	U
10.	*Did you need less sleep than usual?*	0	1	U

(IF YES:)

HOURS

10.a) *How many hours of sleep did you get per night?* ☐☐

HOURS

10.b) *How many hours of sleep do you usually get per night?* ☐☐

		NO	YES	UNK
11.	*Did you have more trouble than usual concentrating because your attention kept jumping from one thing to another?*	0	1	U
12.	*Did you do anything that could have gotten you into trouble--like buy things, make business investments, have sexual indiscretions, drive recklessly?*	0	1	U

(IF YES:) *Specify:* _____

MOST SEVERE EPISODE

	NO	YES	UNK
13. *Would you say your behavior was provocative, obnoxious, arrogant, or manipulative enough to cause problems for your family, friends, or co-workers?*	0	1	U

(IF YES:) *Specify:* _____

BOXES

14. INTERVIEWER: Enter number of boxes with at least one YES response in Q.6-12. [ ]

INTERVIEWER: IF ONLY ONE OR NONE FOR BOTH CURRENT EPISODE AND MOST SEVERE EPISODE, SKIP TO DYSTHYMIA (PAGE 40).

	NO	YES	UNK
15. *Were you so excited that it was almost impossible to hold a conversation with you?*	0	1	U
16. *Did you have beliefs or ideas that you later found out were not true?*	0	1	U

(IF YES:)

Specify: _____

	NO	YES	UNK
16.a) *Did these beliefs occur either just before this mania or after it cleared?*	0	1	U

DAYS

16.b) (IF YES:) *How long did they last?* [ ][ ][ ]

	NO	YES	UNK
17. *Did you see or hear things that other people could not see or hear?*	0	1	U

(IF YES:)

Specify: _____

	NO	YES	UNK
17.a) *Did these visions or voices occur either just before this mania or after it cleared?*	0	1	U

DAYS

17.b) (IF YES:) *How long did they last?* [ ][ ][ ]

		MOST SEVERE EPISODE		
		NO	YES	UNK
18.	(IF Q.16 OR Q.17 IS YES:) INTERVIEWER: Did psychotic symptoms have content that was <u>inconsistent</u> with manic themes such as inflated worth, power, knowledge, identity, or special relationship to a deity or a famous person?	0	1	U
	18.a) (IF YES:) INTERVIEWER: Was subject preoccupied with psychotic symptoms to the exclusion of other symptoms or concerns?	0	1	U
19.	*Did you seek or receive help from someone like a doctor or other professional?*	0	1	U
20.	*Were you prescribed medication for this?*	0	1	U
	(IF YES:) *Specify*:			
		NO	YES	UNK
21.	*Did you receive ECT?*	0	1	U
22.	*During this episode, were you hospitalized for mania?*	0	1	U
	22.a) (IF YES:) *For how long?*	DAYS		

INTERVIEWER: IF PATIENT WAS HOSPITALIZED TWO DAYS OR MORE, HAD ECT OR HAD PSYCHOTIC SYMPTOMS, SKIP TO Q.25 AND CODE INCAPACITATION.

MOST SEVERE EPISODE

23. *Was your major responsibility at that time job, home, school, or something else?*

1 = Job
2 = Home
3 = School
4 = Other

(IF OTHER:) *Specify:*

	NO	YES	UNK
24. *Did your functioning decline (in this role)?* (IF YES:)	0	1	U

Specify:

	NO	YES	UNK
24.a) *Did something happen as a result of this? (such as marital separation, absence from work or school, loss of a job, or lower grades)*	0	1	U

(IF YES:) *Specify:*

	NO	YES	UNK
24.b) (IF NO:) *Did someone comment on your decline in functioning?*	0	1	U

25. **INTERVIEWER: Code based on answers to Q.15-24.**

0 =No Change
1 =Impairment
2 =Incapac.
3 =Improvemt.
U =Unknown

Modified RDC
IMPAIRMENT: Decreased functioning not severe enough to meet incapacitation.

Modified RDC
INCAPACITATION: Complete inability to function in principal role for at least two days, hospitalization, ECT, delusions or hallucinations, or inability to carry on a conversation.

IMPROVEMENT: Improvement in function.

	NO	YES	UNK
26. **RDC IMPAIRMENT: (IF NO CHANGE TO Q.25:)** *Was your functioning in any other area of your life affected or did you get into trouble in any way?* (minor role dysfunction)	0	1	U

(IF YES:) *Specify:*

	MOST SEVERE EPISODE		
	NO	YES	UNK
27. *Did this episode occur during or shortly after an illness of some kind?*	0	1	U

INTERVIEWER: The following illnesses, among others, may be relevant:

MS, HIV, Hyperthyroidism, Lupus, Cushing's, Brain Tumors, Encephalitis.

(IF YES:) *Specify illness*: _____

	NO	YES	UNK
28. *Did this episode begin shortly after you started using decongestants, steroids, or some other medication?*	0	1	U

INTERVIEWER: L-DOPA, among others, may be relevant. Antidepressants are not considered an organic precipitant.

(IF YES:) *Specify*: _____

	NO	YES	UNK
29. *Were you using cocaine or other street drugs or were you drinking more than usual just before this episode began?*	0	1	U

INTERVIEWER: Amphetamines, among others, may be relevant.

(IF YES:)

29.a) *Cocaine?*	0	1	U
(IF YES:) *Specify*: _____			
29.b) *Other street drugs?*	0	1	U
(IF YES:) *Specify*: _____			
29.c) *Increased alcohol?*	0	1	U
(IF YES:) *Specify*: _____			

INTERVIEWER: If coding current episode and it is not the most severe episode, return to Q.5 and code for Most Severe episode.

If you suspect that the episode just defined (most severe) was precipitated and maintained by an organic factor, attempt to establish another severe episode without an organic precipitant.

	NO	YES	U
30. INTERVIEWER: Has there been at least one episode in the person's life that was "clean" (ie. not due to physical illness, uncomplicated bereavement, or drug or alcohol abuse).	0	1	U

INTERVIEWER: To define a manic episode, the patient must be elated and have three symptoms or be irritable and have four symptoms.

CLEAN EPISODE

(IF YES:)

30.a) *How many episodes like this have you had?*

ONS AGE (CLEAN)

30.b) *How old were you the first time you had an episode like this?*

REC AGE (CLEAN)

30.c) *How old were you the last time you had an episode like this?*

UNCLEAN EPISODES

31. (IF NO CLEAN EPISODES:) *How many episodes like this have you had?*

ONS AGE (UNCLEAN)

31.a) *How old were you the first time you had an episode like this?*

REC AGE (UNCLEAN)

31.b) *How old were you the last time you had an episode like this?*

	NO	YES	UNK
32. MIXED AFFECTIVE STATES: *Have you ever felt hyper or energetic when your mood was bad or depressed?*	0	1	U

EPISODES

32.a) (IF YES:) *How many episodes like this have you had?*

RAPID CYCLING

	NO	YES	UNK
33. *Have you had at least four episodes of mood disorder within a one-year period?*	0	1	U
34. *Have you ever switched back and forth quickly between feeling high to feeling normal or depressed?*	0	1	U

	HRS	DAYS	WKS
34.a) (IF YES:) *Was that happening every few hours, every few days, or every few weeks?*	1	2	3

HYPOMANIA

		NO	YES	UNK
35.	(ASK ONLY IF Q.2-34 ARE SKIPPED:) *I have already asked you about periods of extremely high moods clearly different from your normal self. Now I'd like to ask if you have ever had periods lasting even a day or two when you felt unusually cheerful, energetic, or hyper?*	0	1	U

SKIP TO DYSTHYMIA (PAGE 40). ←

(IF YES:) *During that period were you...*

35.a)	*more active than usual?*	0	1	U
35.b)	*more talkative than usual?*	0	1	U
35.c)	*experiencing racing thoughts?*	0	1	U
35.d)	*feeling you were a very important person or had special powers or talents?*	0	1	U
35.e)	*needing less sleep than usual?*	0	1	U
35.f)	*distractible because your attention kept jumping from one thing to another?*	0	1	U
35.g)	*doing anything that could have gotten you into trouble, like buying things or having sexual indiscretions?*	0	1	U

INTERVIEWER: If three or more symptoms coded yes in Q.35.a.-35.g., return to Q.2. (page 32) and complete Mania/Hypomania Section.

SPELLS

36. *How many spells like this have you had?* ☐☐

DAYS

37. *What is the longest that one of these has lasted?* ☐☐☐

AGE

38. *How old were you when you had the first such spell?* ☐☐

DYSTHYMIA

INTERVIEWER: IF SUBJECT HAS HAD MANIA OR CHRONIC PSYCHOSIS, CHECK HERE AND SKIP TO Q.6. ☐

I have asked about episodes of depression that were severe. Some people have less severe periods of depression that go on for years at a time. Now we want to talk about times like that.

		NO	YES	UNK
1.	*Have you ever had a period of two or more years when you felt sad, down, or blue most of the day, more days than not?*	0	1	U

SKIP TO Q.6 <

1.a) *How old were you when the first period like this began?* ONS AGE ☐☐

1.b) *How old were you when it ended?* END AGE ☐☐

		NO	YES	UNK
2.	*Did you have a severe episode of depression either during the first two years of this period or in the six months before this two-year period began?*	0	1	U
3.	*Just before and during this period was there a change in your use of street drugs, alcohol, or prescription medications, or did you have a serious physical illness?*	0	1	U

(IF YES:) *Specify:* _____

_____

INTERVIEWER: If YES to Q.2 or Q.3, identify another two-year period if possible and recode Q.1.a and Q.1.b.

		NO	YES	UNK
4.	*During that two-year period did you...*			
4.a)	*overeat?*	0	1	U
4.b)	*have a poor appetite?*	0	1	U
4.c)	*have trouble sleeping?*	0	1	U
4.d)	*sleep too much?*	0	1	U
4.e)	*feel tired easily?*	0	1	U
4.f)	*feel inadequate or worthless?*	0	1	U
4.g)	*find it hard to concentrate or make decisions?*	0	1	U
4.h)	*feel hopeless?*	0	1	U

INTERVIEWER: IF LESS THAN TWO POSITIVE SYMPTOMS (BOXED ITEMS COUNT AS ONE SYMPTOM), SKIP TO Q.6.

		NO	YES	UNK
5.	*During that two-year period was your mood ever normal for as long as two months in a row--that is, two months when you were not sad, blue or down?*	0	1	U

I. ALCOHOL ABUSE AND DEPENDENCE

I am going to ask you a series of questions about alcohol and drug use. I will use the word "often" in some of these questions; by often, we mean three or more times. Now, I would like to ask you some questions about alcoholic beverages like beer, wine, wine coolers, champagne, or hard liquor like vodka, gin, or whiskey.

		NO	YES
1.	*Have you ever had a drink of alcohol?*	0	1
	1.a) (IF NO:) *So, you have never had even one drink of alcohol?*	0	1

SKIP TO DRUG ABUSE (PAGE 51). <

SITE OPTIONAL

		NO	YES
2.	*Let us begin with the last week. Did you have any drink containing alcohol in the last week?*	0	1

SKIP TO Q.4. <

We would like to know the number of alcoholic drinks you have had on each day in the last week. Let us begin with yesterday, that is _____ (Name and record day of week).

3. *How many drinks of* (Type of Beverage) *did you have on* (Day)? (Record in Col. I below.)

3.a) *How long in minutes did it take you to consume that amount?* (Record in Col. II below.)

INTERVIEWER: Ask for all types of beverages and then go to next day. If "DON'T KNOW" or "CAN'T REMEMBER", Code "UU".

Day Last Week	BEER/LITE BEER I. Drinks	BEER/LITE BEER II. Minutes	WINE I. Drinks	WINE II. Minutes	LIQUOR I. Drinks	LIQUOR II. Minutes
MON						
TUE						
WED						
THUR						
FRI						
SAT						
SUN						

		NO	YES
4.	*Would you say that your drinking/not drinking in the past week was typical of your drinking habits?*	0	1

	NO	YES
5. *Did you ever drink regularly--that is, at least once a week, for six months or more?*	0	1

SKIP TO Q.7. <

SITE OPTIONAL

ONS AGE

5.a) (IF YES:) *How old were you the first time you drank that regularly?*

(IF Q.4 IS NO--PAST WEEK NOT TYPICAL): *We would like to know the number of drinks containing alcohol you would have in a typical week in the past six months when you drink.*

6. *During a typical week, on* (Day) *how many drinks of* (Type of beverage) *do you have?* (Record in Col. I below.)

6.a) *How long in minutes does it take you to consume that amount?* (Record in Col. II below.)

INTERVIEWER: Ask for all types of beverages and then go to next day. If "DON'T KNOW" or "CAN'T REMEMBER", Code "UU".

Day of Week	BEER/LITE BEER I. Drinks	BEER/LITE BEER II. Minutes	WINE I. Drinks	WINE II. Minutes	LIQUOR I. Drinks	LIQUOR II. Minutes
MON						
TUE						
WED						
THUR						
FRI						
SAT						
SUN						

	NO	YES
7. *Did you ever get drunk--that is, when your speech was slurred or you were unsteady on your feet?*	0	1

IF NO TO BOTH Q.5 AND Q.7, SKIP TO DRUG ABUSE (PAGE 51). <

8. *What is the largest number of drinks you have ever had in a 24-hour period?*

DRINKS ☐☐

Record response:_____

HARD LIQUOR DRINK EQUIVALENTS: 1 SHOT GLASS/HIGHBALL = 01
1/2 PINT = 06
1 PINT = 12
1 FIFTH = 20
1 QUART = 24

WINE DRINK EQUIVALENTS: GLASS = 1
BOTTLE = 6
WINE COOLER = 1

BEER DRINK EQUIVALENTS: BOTTLE/CAN = 1
CASE = 24

IF 3 DRINKS OR FEWER, SKIP TO DRUG ABUSE (PAGE 51). → DRUG ABUSE (PAGE 51)

	NO	YES
9. *Did you ever feel you should cut down on your drinking?*	0	1

SITE OPTIONAL

9.a) **(IF YES:)** *How old were you the first time you felt you should cut down on your drinking?* ONS AGE ☐☐

	NO	YES
10. *Have people annoyed you by criticizing your drinking?*	0	1
11. *Have you ever felt bad or guilty about drinking?*	0	1
12. *Did you ever have a drink first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)?*	0	1

INTERVIEWER: IF Q.9-12 ARE ALL NO, SKIP TO DRUG ABUSE (PAGE 51).

*13. *Have you often tried to stop or cut down on drinking?* 0 1

SITE OPTIONAL

13.a) **(IF YES:)** *How old were you the first time?* ONS AGE ☐☐

	NO	YES
*14. *Did you ever try to stop or cut down on drinking and find you could not?*	0	1

		NO	YES	ONCE
15.	*Have you more than once gone on binges or benders when you kept drinking for a couple of days or more without sobering up?*	0	1	2

SITE OPTIONAL

15.a) **(IF YES:)** *How old were you the first time?* ONS AGE ☐☐

		NO	YES
*16.	*Have you often started drinking when you promised yourself that you would not, or have you often drunk more than you intended to?*	0	1
*17.	*Has there ever been a period when you spent so much time drinking or recovering from the effects of alcohol that you had little time for anything else?*	0	1
18.	*Did your drinking cause you to:*		
	18.a) *have problems at work or at school?*	0	1
	18.b) *get into physical fights while drinking?*	0	1
	18.c) *hear objections about your drinking from your family, friends, doctor, or clergyman?*	0	1
	18.d) *lose friends?*	0	1
	*18.e) **(IF ANY YES IN Q.18a-d ABOVE:)** *Did you continue to drink after you knew it caused you any of these problems?*	0	1

SITE OPTIONAL

18.f) **(IF ANY YES:)** *How old were you the first time you had* **(Mention items coded YES in Q.18.a-d above)?** ONS AGE ☐☐

		NO	YES
19.	*Did you ever need to drink a lot more in order to get an effect, or find that you could no longer get high or drunk on the amount you used to drink?*	0	1
	INTERVIEWER: Hand Alcohol Use Card to Subject.		
	*19.a) **(IF YES:)** *Would you say 50 percent more?*	0	1
20.	*Some people try to control their drinking by making rules like not drinking before five o'clock or never drinking alone. Have you ever made any rules to control your drinking?*	0	1

	NO	YES
*21. *Have you ever given up or greatly reduced important activities while drinking--like sports, work, or associating with friends or relatives?*	0	1
21.a) (IF YES:) *Has this happened more than once?*	0	1
22. *Have you ever had trouble driving, like having an accident, because of drinking?*	0	1

SITE OPTIONAL

ONS AGE

22.a) (IF YES:) *How old were you the first time this happened?* ☐☐

	NO	YES
23. *Have you ever been arrested for drunk driving?*	0	1

SITE OPTIONAL

ONS AGE

23.a) (IF YES:) *How old were you the first time this happened?* ☐☐

	NO	YES
24. *Have you ever been arrested or detained by the police even for a few hours because of drunken behavior (other than drunk driving)?*	0	1

SITE OPTIONAL

ONS AGE

24.a) (IF YES:) *How old were you the first time this happened?* ☐☐

	NO	YES
*25. *Have you often been high from drinking in a situation where it increased your chances of getting hurt--for instance, when driving, using knives or machinery or guns, crossing against traffic, climbing, or swimming?*	0	1
*26. *Has your drinking or being hung over often kept you from working or taking care of household responsibilities?*	0	1

SITE OPTIONAL

ONS AGE

26.a) (IF YES:) *How old were you the first time this happened?* ☐☐

		NO	YES
27.	*Have you more than once had blackouts, when you did not pass out, but you drank enough so that the next day you could not remember things you said or did?*	0	1

SITE OPTIONAL	ONS AGE
27.a) (IF YES:) *How old were you the first time this happened?*	

		NO	YES
28.	*Did you ever drink unusual things such as rubbing alcohol, mouthwash, vanilla extract, cough syrup, or any other non-beverage substance containing alcohol?*	0	1

29. *Did you ever have any of the following problems when you stopped or cut down on drinking?*

INTERVIEWER: Code in Column I.

		EVER		OCCUR TOGETHER	
		NO	YES	NO	YES
29.a)	*Were you unable to sleep?*	0	1	0	1
29.b)	*Did you feel anxious, depressed, or irritable?*	0	1	0	1
29.c)	*Did you sweat?*	0	1	0	1
29.d)	*Did your heart beat fast?*	0	1	0	1
29.e)	*Did you have nausea or vomiting?*	0	1	0	1
29.f)	*Did you feel weak?*	0	1	0	1
29.g)	*Did you have headaches?*	0	1	0	1
*29.h)	*Did you have the shakes (hands trembling)?*	0	1	0	1
29.i)	*Did you see things that were not really there?*	0	1	0	1
29.j)	*Did you have the DT's, that is, where you were out of your head, extremely shaky, or felt very frightened or nervous?*	0	1	0	1
29.k)	*Did you have fits, seizures, or convulsions, where you lost consciousness, fell to the floor, and had difficulty remembering what happened?*	0	1	0	1

**INTERVIEWER: IF ALL NO IN Q.29.a-k ABOVE, SKIP TO Q.30.
IF ONLY ONE YES, SKIP TO Q.29.n.**

		NO	YES
*29.l)	*Was there ever a time when two or more of these symptoms occurred together?*	0	1
29.m)	(IF YES:) *Which ones?* (Code in Column II.)		
*29.n)	*On three or more different occasions have you taken a drink to keep from having any of these symptoms or to make them go away?*	0	1

		NO	YES
30.	*There are several other health problems that can result from long stretches of heavy drinking. Did drinking ever:*		
30.a)	*cause you to have liver disease or yellow jaundice?*	0	1
30.b)	*give you stomach disease or make you vomit blood?*	0	1
30.c)	*cause your feet to tingle/feel numb for many hours?*	0	1
30.d)	*give you memory problems even when you were not drinking (not blackouts)?*	0	1
30.e)	*give you pancreatitis?*	0	1
30.f)	*damage your heart (cardiomyopathy)?*	0	1
30.g)	*cause other problems?* (IF OTHER:) *Specify:* _____	0	1

IF ALL NO, SKIP TO Q.31. <

*30.h)	*Did you continue to drink knowing that drinking caused you to have health problems?*	0	1

*31.	*Have you ever continued to drink when you knew you had any (other) serious physical illness that might be made worse by drinking?*	0	1

(IF YES:) *What illness?* _____

		NO	YES
32.	*While drinking, did you ever have any psychological problems start or get worse such as feeling depressed, feeling paranoid, trouble thinking clearly, hearing, smelling or seeing things, or feeling jumpy?*	0	1

(IF YES:) Specify which problems, read appropriate subquestion to confirm response and code.

Specify: _____

_____

32.a)	*feeling depressed or uninterested in things for more than 24 hours to the point that it interfered with your functioning?*	0	1
32.b)	*feeling paranoid or suspicious of people for more than 24 hours to the point that it interfered with your relationships?*	0	1
32.c)	*having such trouble thinking clearly that it interfered with your functioning?*	0	1
32.d)	*hearing, smelling, or seeing things that were not there?*	0	1
32.e)	*feeling jumpy or easily startled or nervous to the point that it interfered with your functioning?*	0	1
*32.f)	(IF ANY YES IN Q.32.a-e ABOVE:) *Did you continue to drink after you knew it caused you any of these problems?*	0	1

		NO	YES
33.	*Have you ever had treatment for a drinking problem?*	0	1
	(IF YES:) *Was this treatment...*		
	33.a) *discussion with a professional?*	0	1
	33.b) *AA or other self-help?*	0	1
	33.c) *outpatient alcohol program?*	0	1
	33.d) *inpatient alcohol program?*	0	1
	33.e) *other? Specify:* _____	0	1

INTERVIEWER: CHECK RESPONSES TO Q.19-33. IF ALL CODED NO, SKIP TO Q.36.

		NO	YES
34.	**INTERVIEWER: Code YES if at least two symptoms of the disturbance have persisted for at least one month or have occurred over a longer period of time.**	0	1

(IF UNCLEAR, ASK:) You told me you had these experiences such as (Review starred (*) positive symptoms in Q.13-32) *While you were drinking, was there ever at least a month during which at least two of these occurred persistently? (IF NO:) Was there ever a longer period of time during which at least two of these occurred repeatedly?*

(IF YES:)

ONS AGE

34.a) *How old were you the first time at least two of these experiences occurred persistently?* ☐☐

REC AGE

34.b) *How old were you the last time at least two of these experiences occurred persistently?* ☐☐

SITE OPTIONAL

35. *How old were you the first (second/third) time you had any of these problems related to alcohol? What was the first (second/third) problem you experienced?*

ONS AGE

35.a) First: _____ ☐☐

35.b) Second: _____ ☐☐

35.c) Third: _____ ☐☐

36. *When was the last time you had a drink (containing alcohol)?* ☐☐-☐☐☐-☐☐

D D M O N Y Y

MARIJUANA

		NO	YES
1.	*Have you ever used marijuana?*	0	1

SKIP TO Q.15. <

1.a) (IF YES:) *Have you used marijuana at least 21 times in a single year?* 0 1

SKIP TO Q.15. <

2. *What was the longest period that you used marijuana almost every day?* DAYS ___

2.a) (IF MORE THAN 30 DAYS:) *When was that?* 01 - ___ - ___

D D M O N Y Y

		NO	YES
3.	*Has there ever been a period of a month or more when a great deal of your time was spent using marijuana, getting marijuana, or getting over its effects?*	0	1

4. *While using marijuana did you ever have any psychological problems, such as feeling depressed, feeling paranoid, having trouble thinking clearly, hearing or seeing or smelling things, or feeling jumpy?*

(IF YES:) Specify which problems, read appropriate subquestions to confirm response and code.

Specify: _____

_____

4.a)	*feeling depressed or uninterested in things for more than 24 hours to the point that it interfered with your functioning?*	0	1
4.b)	*feeling paranoid or suspicious of people for more than 24 hours to the point that it interfered with your relationships?*	0	1
4.c)	*trouble concentrating or having such trouble thinking clearly for more than 24 hours that it interfered with your functioning?*	0	1
4.d)	*hearing, seeing, or smelling things that were not there?*	0	1
4.e)	*feeling jumpy or easily startled or nervous to the point that it interfered with your functioning?*	0	1
4.f)	(IF YES TO ANY Q.4.a-e:) *Did you continue to use marijuana after you knew it caused these problems?*	0	1

5.	*Have you often wanted to or tried to cut down on marijuana?*	0	1

		NO	YES
6.	*Did you ever try to cut down on marijuana and find you could not?*	0	1
7.	*Have you often used marijuana more frequently or in larger amounts than you intended to?*	0	1
8.	*Did you ever need larger amounts of marijuana to get an effect, or did you ever find that you could no longer get high on the amount you used to use?* **INTERVIEWER: Code YES if at least 50% more use.**	0	1
9.	*Did stopping or cutting down ever cause you to feel bad physically?* (Co-occurrence of symptoms such as nervousness, insomnia, sweating, nausea, diarrhea.)	0	1
	(IF YES:)		
	*Specify:*_____		
	9.a) *Have you often used marijuana to make any of these withdrawal symptoms go away or to keep from having them?*	0	1
10.	*Have you often been under the effects of marijuana in a situation where it increased your chances of getting hurt--for instance, when driving, using knives or machinery or guns, crossing against traffic, climbing, or swimming?*	0	1
11.	*Did anyone ever object to your marijuana use?*	0	1
	11.a) **(IF YES:)** *Did you continue to use marijuana after you realized it was causing this problem?*	0	1
12.	*Have you often given up or greatly reduced important activities with friends or relatives or at work while using marijuana?*	0	1
13.	*Have you often been high on marijuana or suffering its after-effects while in school, working, or taking care of household responsibilities?*	0	1

INTERVIEWER: IF Q.3-13 ARE ALL NO, SKIP TO Q.15.

		NO	YES
14.	**INTERVIEWER: Code YES if at least two symptoms (Q.3-13) of the disturbance have persisted for at least one month or have occurred repeatedly over a longer period of time.**	0	1

(IF UNCLEAR, ASK:) *You told me you had these experiences such as* (Review positive symptoms in Q.3-13). *While you were using marijuana, was there ever at least a month during which at least two of these occurred persistently?*
(IF NO:) *Was there ever a longer period of time during which at least two of these occurred repeatedly?*
(IF YES:)

ONS AGE

14.a) *How old were you the first time at least two of these experiences occurred persistently?* [ ][ ]

REC AGE

14.b) *How old were you the last time at least two of these experiences occurred persistently?* [ ][ ]

14.c) *When was the last time you used marijuana?* [ ][ ]-[ ][ ][ ]-[ ][ ]

D D M O N Y Y

OTHER DRUGS

INTERVIEWER: Hand Drug Use Card to subject.

15. *Have you ever used any of these drugs to feel good or high, or to feel more active or alert, or when they were not prescribed for you? Or have you ever used a prescribed drug in larger quantities or for longer than prescribed?*

15.a) (IF YES:) *Which ones?*

	A COC	B STIM	C SED	D OP	E PCP	F HAL	G SOL	H OTH	I COMB
NO	0	0	0	0	0	0	0	0	0
YES	1	1	1	1	1	1	1	1	1

IF ALL NO, SKIP TO PSYCHOSIS (PAGE 58).

15.b) INTERVIEWER: For each drug ask: *How many times have you used (Drug) in your life?*

(IF UNKNOWN, ASK:) *Would you say more than 10 times?*

	A COC	B STIM	C SED	D OP	E PCP	F HAL	G SOL	H OTH	I COMB
# OF TIMES									

15.c) (FOR COCAINE AND PCP USERS ONLY:) *How old were you the first time you used (Drug)?*

A COC	E PCP

	NO	YES
15.d) *Have you ever injected a drug?*	0	1

INTERVIEWER: IF ALL DRUGS IN Q.15.b WERE USED LESS THAN 11 TIMES, SKIP TO PSYCHOSIS (PAGE 58).

For drugs used 11 or more times, rank order according to number of times used and ask about at least the two most frequently used.

16. *What is the longest period you used (Drug) almost every day?*

	A COC	B STIM	C SED	D OP	E MISC
DAYS					

INTERVIEWER: If never used daily, code 000.

			A COC	B STIM	C SED	D OP	E MISC
17.	*Has there ever been a period of a month or more when a great deal of your time was spent using (Drug), getting (Drug), or getting over effects?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
18.	*Have you often wanted to or tried to cut down on (Drug)?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
19.	*Did you ever find you could not stop or cut down?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
20.	*Did you ever need larger amounts of (Drug) to get an effect, or find that you could no longer get high on the amount you used to use?*						
	INTERVIEWER: Code YES if at least 50% more use.	NO	0	0	0	0	0
		YES	1	1	1	1	1
21.	*Have you often given up or greatly reduced important activities with friends or relatives or at work in order to use (Drug)?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
22.	*Have you often used (Drug) more days or in larger amounts than you intended to?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
INTERVIEWER: Refer to back of Drug Use Card.							
23.	*Has stopping, cutting down on, or quitting (Drug) ever caused you any of these problems?*						
	23.a) *feel depressed?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
	23.b) *feel nervous, tense, restless, or irritable?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
	23.c) *feel tired, sleepy, or weak?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
	23.d) *have trouble sleeping?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
	23.e) *have an increase or decrease in appetite?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
	23.f) *tremble or twitching?*	NO			0	0	0
		YES			1	1	1
	23.g) *sweat or have a fever?*	NO			0	0	0
		YES			1	1	1
	23.h) *have nausea or vomiting?*	NO			0	0	0
		YES			1	1	1
	23.i) *have diarrhea or stomach aches?*	NO			0	0	0
		YES			1	1	1
	23.j) *have your eyes water or nose run?*	NO				0	0
		YES				1	1
	23.k) *have muscle pains?*	NO				0	0
		YES				1	1

23. DRUG ABUSE AND DEPENDENCE (Cont'd)

			A COC	B STIM	C SED	D OP	E MISC
23.l)	*yawn?*	NO				0	0
		YES				1	1
23.m)	*have your heart race?*	NO			0		0
		YES			1		1
23.n)	*have seizures?*	NO			0		0
		YES			1		1
	(IF YES:) *How many times?*	# OF TIMES					

INTERVIEWER: IF Q.23.a-n ARE ALL NO, SKIP TO Q.26.

			A COC	B STIM	C SED	D OP	E MISC
24.	*Was there a time when two or more of these symptoms occurred together because you were not using* (Drug)?	NO	0	0	0	0	0
		YES	1	1	1	1	1
25.	*Have you often used* (Drug) *to make these withdrawal symptoms go away or to keep from having them?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
26.	*Did using* (Drug) *cause you to have any other physical health problems (other than withdrawal)?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
	(IF YES:) *Specify:*_____						
26.a)	*Did you continue to use* (Drug) *after you knew it caused this problem?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
27.	*Did you ever experience objections from family, friends, clergyman, boss or people at work or school because of your* (Drug) *use?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
27.a)	(IF YES:) *Did you continue to use* (Drug) *after you realized it was causing a problem?*	NO	0	0	0	0	0
		YES	1	1	1	1	1
28.	*Have you often been high on* (Drug) *or suffering its after-effects while in school, working, or taking care of household responsibilities?*	NO	0	0	0	0	0
		YES	1	1	1	1	1

29. *While using (Drug), did you ever have any psychological problems start or get worse, such as feeling depressed, feeling paranoid, trouble thinking clearly, hearing, smelling, or seeing things, or feeling jumpy?*

(IF YES:) Specify which problems, read appropriate subquestions to confirm response and code.

Specify: _____

_____

			A COC	B STIM	C SED	D OP	E MISC
29.a)	*feeling depressed or uninterested in things for more than 24 hours to the point where it interfered with your functioning?*	NO YES	0 1	0 1	0 1	0 1	0 1
29.b)	*feeling paranoid or suspicious of people for more than 24 hours to the point that it interfered with your relationships?*	NO YES	0 1	0 1	0 1	0 1	0 1
29.c)	*having such trouble thinking clearly that it interfered with your functioning?*	NO YES	0 1	0 1	0 1	0 1	0 1
29.d)	*hearing, seeing, or smelling things that were not really there?*	NO YES	0 1	0 1	0 1	0 1	0 1
29.e)	*feeling jumpy or easily startled or nervous for more than 24 hours to the point that it interfered with your functioning?*	NO YES	0 1	0 1	0 1	0 1	0 1
29.f)	**(IF ANY YES IN Q.29.a-e:)** *Did you continue to use (Drug) after you knew it caused any of these problems?*	NO YES	0 1	0 1	0 1	0 1	0 1

INTERVIEWER: IN Q.17-29 THERE MUST BE AT LEAST TWO ITEMS CODED YES IN A DRUG CATEGORY TO CONTINUE IN THAT CATEGORY. IF NO CATEGORY MEETS THIS CRITERION, SKIP TO PSYCHOSIS (PAGE 58).

			A COC	B STIM	C SED	D OP	E MISC
30.	*Have you often been under the effects of (Drug) in a situation where it increased your chances of getting hurt--for instance, when driving, using knives or machinery or guns, crossing against traffic, climbing, or swimming?*	NO YES	0 1	0 1	0 1	0 1	0 1

			A COC	B STIM	C SED	D OP	E MISC
31.	**INTERVIEWER: Code YES if at least two symptoms of the disturbance have persisted for at least one month or have occurred repeatedly over a longer period of time.**	NO	0	0	0	0	0
		YES	1	1	1	1	1

(IF UNCLEAR, ASK:) *You told me you had these experiences such as* **(Review positive symptoms in Q.17-30).** *While you were using drugs, was there ever at least a month during which at least two of these occurred persistently?* **(IF NO:)** *Was there ever a longer period of time during which at least two of these occurred repeatedly?*

(IF YES:)

31.a) *How old were you the first time at least two of these experiences occurred persistently?* ONS AGE ☐☐ ☐☐ ☐☐ ☐☐ ☐☐

31.b) *How old were you the last time at least two of these experiences occurred persistently?* REC AGE ☐☐ ☐☐ ☐☐ ☐☐ ☐☐

		NO	YES
32.	*Have you ever been treated for a drug problem?*	0	1
	(IF YES:) *Was this treatment:*		
32.a)	*discussion with a professional?*	0	1
32.b)	*NA or other self-help?*	0	1
32.c)	*outpatient drug-free program?*	0	1
32.d)	*inpatient drug-free program?*	0	1
32.e)	*other?* **(IF YES:)** *Specify:*_____	0	1

33. *When was the last time you used:*

33.a) *Cocaine?* ☐☐-☐☐☐-☐☐ (D D M O N Y Y)

33.b) *Stimulants?* ☐☐-☐☐☐-☐☐ (D D M O N Y Y)

33.c) *Sedatives, hypnotics, or tranquilizers?* ☐☐-☐☐☐-☐☐ (D D M O N Y Y)

33.d) *Opiates?* ☐☐-☐☐☐-☐☐ (D D M O N Y Y)

33.e) *Other drugs?* ☐☐-☐☐☐-☐☐ (D D M O N Y Y)

Now I would like to read you a list of experiences that other people have reported. Tell me which ones you have had.

INTERVIEWER: For each positive response, ask the following standard probes:

Were you convinced?

How did you explain it?

Did you change your behavior?

How often did this happen?

How long did it last?

Record an example of each positive response in the margins.

		NO	YES	SUSP-ECTED	UNK
1.	*Has there been a time when . . . .*				
1.a)	*you heard voices? For example, some people have had the experience of hearing people's voices whispering or talking to them, even when no one was actually present?*	0	1	2	U
1.b)	*you had visions or saw things that were not visible to others?*	0	1	2	U
1.c)	*you had beliefs or ideas that others did not share or later found out were not true--like people being against you, people trying to harm you, or people talking about you?*	0	1	2	U
	you believed that you were being given special messages (e.g., through the TV or the radio)?				
	you believed that you had done something terrible for which you should be punished?				
	you believed that you were especially important in some way, or that you had powers to do things that other people could not do?				
	you had the feeling that you were under the control of some force or power other than yourself?				
	you had a change in your body or in your physical appearance that others could not see?				

(IF YES TO ANY:) *Describe:*_____

_____

_____

INTERVIEWER: IF THERE IS NO EVIDENCE, FROM ANY SOURCE, OF ANY PSYCHOSIS OR IF THE EXPERIENCES REPORTED DID NOT LAST PERSISTENTLY THROUGHOUT THE DAY FOR ONE DAY OR INTERMITTENTLY FOR A PERIOD OF THREE DAYS, SKIP TO SCHIZOTYPAL (BIPOLAR CENTERS - PAGE 81) OR SIS (SCHIZOPHRENIA CENTERS - PAGE 83).

Interviewer: If there is any evidence of psychosis on page 58, continue.

1) Describe the psychotic symptoms in detail. Probe as necessary.

2) Is there any relation to mood state? Are psychotic symptoms present *only* when depressed or manic? If so, do symptoms occur in euthymic periods as well?

3) Is there any relation of psychotic symptoms to drug and alcohol use? Are the symptoms present only with substance use?

4) Is there any relation to psychotic symptoms to starvation? Are the symptoms present only when emaciated?

Consensus Rating:

0 No psychotic disorder
0 Psychotic symptoms due to substance use

1 Psychotic mood disorder
2 Schizophreniform disorder
3 Schizophrenia
4 Schizoaffective disorder
5 Psychotic disorder NOS

CODE

Comorbidity

Interviewer. *Complete this section for subjects with any two of the following: eating disorder, mood disorder, or alcohol/drug dependence.*

Check here and skip if this section does not apply to the subject ☐

You mentioned earlier that you have had ***(eating disorder / mood disorder / alcohol-drug dependence)****. Think about the FIRST time you had any of these problems.*

INTERVIEWER: *ASK PROBE QUESTIONS AS REQUIRED.*

A.1 *(IF HAD EATING DISORDER & MOOD DISORDER. RATE FIRST OCCURRENCE.)*
- *1 = Eating disorder occurred first*
- *2 = Mood disorder occurred first*
- *3 = Eating disorder and mood disorder occurred at the same time*
- *4 = Not clear*

☐

A.2 *(IF HAD ANOREXIA NERVOSA & MOOD DISORDER.)*
- *1 = Mood disorder ONLY when emaciated*
- *2 = Mood disorder occurred when NOT emaciated*
- *3 = Not clear*

☐

B. *(IF HAD EATING DISORDER & ALCOHOL/DRUG DEPENDENCE. RATE FIRST OCCURRENCE.)*
- *1 = Eating disorder occurred first*
- *2 = Alcohol/drug dependence occurred first*
- *3 = Eating disorder and alcohol/drug dependence occurred at the same time*
- *4 = Not clear*

☐

C. *(IF HAD MOOD DISORDER & ALCOHOL/DRUG DEPENDENCE. RATE FIRST OCCURRENCE.)*
- *1 = Mood disorder occurred first*
- *2 = Alcohol/drug dependence occurred first*
- *3 = Mood disorder and alcohol/drug dependence occurred at the same time*
- *4 = Not clear*

☐

D. *INTERVIEWER: Note age of onset. Leave blank if did not have the disorder.*

Eating disorder ☐☐

Mood disorder ☐☐

Alcohol/drug dependence ☐☐

Self-Harm & Suicide

1. *Have you ever deliberately harmed yourself to relieve tension or to feel better?* *0=No 1=Yes*

1.a *(IF YES. note behaviour and frequency)*

Cutting wrists, arms. etc	0	1	2-3	4+
Burning self	0	1	2-3	4+
Head banging, hitting self	0	1	2-3	4+
Inserting sharp objects into skin	0	1	2-3	4+
Other (specify_____)	0	1	2-3	4+

1.b *(IF YES) At what age did you FIRST do this?* ..... ☐☐

1.c *(IF YES) At what age did you LAST do this?* ..... ☐☐

---

2. *Have you ever tried to kill yourself?* ..... *0=No 1=Yes*

2.a *(IF YES) How many times have you tried to kill yourself?* ..... ☐☐

2.b *(IF YES: in the following. focus on the most serious attempt) What did you do?*

_____

_____

2.c *(IF YES) How old were you?* ..... ☐☐

2.d *(IF YES) Did you require medical treatment after this attempt?* ..... *0=No 1=Yes*

2.e *(IF YES) Were you admitted to hospital?* .....*0=No 1=A&E 2=INPT*

2.f *(IF YES) Did you want to die?* ..... *?=Unsure 0=No 1=Yes*

2.g *(IF YES) Did you think you would die from what you had done?* .....*?=Unsure 0=No 1=Yes*

2.h *(IF YES) INTERVIEWER: rate INTENT of the most serious attempt.*
1 = No or minimal intent, manipulative gesture
2 = Definite intent but ambivalent
3 = Serious intent, expected to die
? = No information, not sure
☐

2.i *(IF YES) INTERVIEWER: rate LETHALITY of most serious attempt.*
1 = No danger (no effects, held pills inhand)
2 = Minimal (scratch on wrist)
3 = Mild (10 aspirin, mild gastritis)
4 = Moderate (briefly unconscious)
5 = Severe (cut throat)
6 = Extreme (resp arrest, long coma)
? = No information, not sure
☐

Now I would like to ask you some questions about certain situations and reactions you may have experienced.

OBSESSIONS

		NO	YES	UNK
1.	*Have you ever been bothered by thoughts that did not make any sense, that kept coming back to you even when you tried not to have them?*	0	1	U
	SKIP TO Q.2. <—			
	1.a) *What were they?* _____			
	1.b) *What did you do about them?* _____			
	1.c) **INTERVIEWER: Code YES if the person tries to ignore or suppress such thoughts or to neutralize them with some other thought or action.** (IF UNCLEAR:) *Did these thoughts continue to bother you no matter how hard you tried to get rid of them or ignore them?*	0	1	U
	1.d) **INTERVIEWER: Does the person recognize that the obsessions are imposed from within (not from without as in thought insertion)?**	0	1	U
	1.e) **INTERVIEWER: Code YES if the thoughts appear to be unrelated to other AXIS I disorders which are present (e.g., Major Depression, Mania, Eating Disorders, Substance Abuse Disorder).**	0	1	U

COMPULSIONS

2.	*Have you ever had to repeat some act over and over which you could not resist repeating in order to feel less anxious--like washing your hands, counting things, or checking things?* (PROBE: *Another example might be doing things in a certain order and having to start over again if you get the order wrong.*)	0	1	U
	IF NO OBSESSIONS (any NO in Q.1) AND NO COMPULSIONS, SKIP TO Q.11. <—			
	IF NO COMPULSIONS ONLY, SKIP TO Q.4 <—			
	2.a) *What was it you did over and over?* _____			
	2.b) *What were you afraid would happen if you did not do it?* _____			

	NO	YES	UNK
2.c) INTERVIEWER: Code YES if the behavior is designed to neutralize or prevent something unwanted, yet is not realistically connected with what it is meant to neutralize or prevent.	0	1	U
3. *Did you ever feel that these behaviors were excessive or unreasonable?*	0	1	U

MINUTES

4. *How much time did you spend doing* (Compulsion) *and or thinking about* (Obsession) *each day?* [ ][ ][ ]

	NO	YES	UNK
5. *Did you seek help from anyone, like a doctor or other professional?*	0	1	U
6. *Did you take any medication?*	0	1	U

(IF YES:) *Specify:* _____

_____

7. *What effect did these* (Obsessions and/or Compulsions) *have on your life?*

_____

_____

	NO	YES	UNK
7.a) *Did these* (Obsessions and/or Compulsions) *bother you a lot?*	0	1	U
7.b) *Did they significantly interfere with how you managed your work, school, household tasks, or social relationships?*	0	1	U

ONS AGE

8. *How old were you the <u>first</u> time you were bothered by* (Obsession and/or Compulsion)? [ ][ ]

REC AGE

9. *How old were you the <u>last</u> time you were bothered by* (Obsession and/or Compulsion)? [ ][ ]

	NO	YES	UNK
10. *Did you ever have* (Obsession and/or Compulsion) *at some time other than within two months of having* (Depression/ Psychosis).	0	1	U

PANIC DISORDER

		NO	YES	UNK
11.	*Have you ever had panic attacks or anxiety attacks when you suddenly felt very frightened in situations that are usually not considered threatening?*	0	1	U
11.a)	(IF NO:) *Have you ever had <u>sudden, unexplained</u> episodes of physical symptoms such as rapid or loud heartbeat, feeling faint or lightheaded, sweating, trembling? How about <u>sudden, unexplained</u> episodes of chest tightness or a feeling of smothering?*	0	1	U

SKIP TO Q.26 - PHOBIC DISORDER <

12. *Describe spells and situations in which* (Symptoms indicated above) *happen:* (Are the attacks predicable?)

_____

_____

_____

12.a)	INTERVIEWER: Code NO if the attacks were always predictable. Code YES if attacks were at least initially unexpected and seemed to be coming out of the blue even if they later became triggered by one particular stimulus.	0	1	U
12.b)	INTERVIEWER: Code NO if the attacks were associated exclusively with physical exertion or life-threatening situations.	0	1	U

13. *During the attacks, did you experience any of the following symptoms:*

	EVER			MOST ATTACKS		
	NO	YES	UNK	NO	YES	UNK
13.a) *sudden rapid heartbeat, your heart pounding loudly?*	0	1	U	0	1	U
13.b) *choking?*	0	1	U	0	1	U
13.c) *sudden sweating?*	0	1	U	0	1	U
13.d) *sudden trembling or shaking?*	0	1	U	0	1	U
13.e) *hot flashes or chills?*	0	1	U	0	1	U
13.f) *chest tightness or pain?*	0	1	U	0	1	U
13.g) *shortness of breath, or a feeling of smothering, or lightheadedness?*	0	1	U	0	1	U
13.h) *dizziness or unsteady feelings?*	0	1	U	0	1	U
13.i) *numbness or tingling?*	0	1	U	0	1	U
13.j) *fear of dying during the attack?*	0	1	U	0	1	U
13.k) *nausea or abdominal distress?*	0	1	U	0	1	U

	EVER			MOST ATTACKS		
	NO	YES	UNK	NO	YES	UNK
13.l) *feeling that you or the world around you was strange or unreal?*	0	1	U	0	1	U
13.m) *fear of going crazy or doing something uncontrolled?*	0	1	U	0	1	U

INTERVIEWER: IF LESS THAN TWO SYMPTOMS, SKIP TO Q.26 - PHOBIC DISORDER.

INTERVIEWER: If more than two symptoms are coded YES in Q.13 and subject progressed past Q.4 in Somatization, review corresponding items in Somatization disorder (Q.3.e, 7.b, 10.e, 16.a, 16.e, 16.f) to make sure they did not occur only during panic attacks. If they did, recode those items as "NO" in Somatization section.

14. *Which symptoms occurred during most attacks?* (Code in Column II.)

SX

14.a) Count Symptoms in Column II and enter here. [ ][ ]

	NO	YES	UNK
15. *Was there ever a time when four of these symptoms occurred together?*	0	1	U

IF Q.14.a IS 2 OR LESS AND Q.15 IS NO, SKIP TO Q.26 - PHOBIC DISORDER. <

(IF YES:)

15.a) *Did you have at least three of these symptoms during most attacks?*	0	1	U
15.b) *Did these symptoms develop and become intense within 10 minutes?*	0	1	U
15.c) **(IF YES:)** *Did this happen more than once?*	0	1	U
16. *Have you had as many as six panic attacks, spread over a six-week period?*	0	1	U
16.a) **(IF YES:)** *Were you nervous between the attacks?*	0	1	U
17. *Have you ever had at least four of these attacks within a four-week period?*	0	1	U
17.a) **(IF NO:)** *After having an attack, have you been afraid of having another one?*	0	1	U

WEEKS

17.b) **(IF YES TO Q.17.a:)** *How long did that fear last (weeks)?* [ ][ ]

		NO	YES	UNK
18.	*Did you seek help from anyone, like a doctor or other professional?*	0	1	U
19.	*Did you take any medications for these attacks?*	0	1	U
	(IF YES:) *Specify:* _____			
	_____			
20.	*Did you only have the attacks when you were consuming a lot of caffeine or alcohol or taking drugs like amphetamines?*	0	1	U
	(IF YES:) *Specify:* _____			
	_____			
21.	*Did a doctor ever tell you that you had a medical condition that might have been responsible for these attacks* (e.g., overactive thyroid)?	0	1	U
22.	*Did these attacks significantly interfere with how you managed your work, school, household tasks or social relationships?*	0	1	U
	(IF YES:) *Specify:* _____			
	_____			
	_____			

		ONS AGE
23.	*How old were you the first time you had a panic attack?*	

		REC AGE
24.	*How old were you the last time you had a panic attack?*	

		NO	YES	UNK
25.	*Did you ever have a panic attack at some time other than within two months before or after having* (Depression/Psychosis)?	0	1	U

PHOBIC DISORDER

		NO	YES	UNK
26.	*Have you ever been excessively afraid of the following:*			
26.a)	*going out alone, being alone in a crowd or in stores, or being in places where you feel you cannot escape or get help?* (Agoraphobic)	0	1	U
26.b)	*doing certain things in front of people like speaking, eating, or writing?* (Social)	0	1	U
26.c)	*afraid of certain animals, heights, or being closed in?* (Simple)	0	1	U

SKIP TO EATING DISORDERS (PAGE 118) <

Did you go out of your way to avoid...

27.a) Agoraphobic fear(s)?	0	1	U
27.b) Social fear(s)?	0	1	U
27.c) Simple fear(s)?	0	1	U

SKIP TO EATING DISORDERS (PAGE 118)

Describe Fear(s) by category. If avoidance has developed, note what motivated the person to avoid the situation (e.g., fear of sudden development of a symptom attack, embarrassment, or humiliation). For Agoraphobia, note whether either a limited symptom attack or panic attack has occurred in the past or whether there is only a fear of developing an attack.

28.a) Agoraphobic Fear(s): _____

_____

_____

_____

	NO	YES	UNK
28.b) INTERVIEWER: Did the avoidant behavior begin during or just after a panic attack?	0	1	U

28.c) Social Fear(s): _____

_____

_____

_____

28.d) INTERVIEWER: Did the avoidant behavior begin during or just after a panic attack?	0	1	U

28.e) Simple Fear(s): _____

_____

_____

_____

28.f) INTERVIEWER: Did the avoidant behavior begin during or just after a panic attack?	0	1	U

TERVIEWER: For each fear, ask 29 through Q.38.

	AGORAPHOBIC			SOCIAL			SIMPLE		
	NO	YES	UNK	NO	YES	UNK	NO	YES	UNK
. *Did you almost always become anxious when you were experiencing* (Feared object/situation)?		N/A		0	1	U	0	1	U
. *Do you think that you should have been that anxious?*	0	1	U	0	1	U	0	1	U
. INTERVIEWER: Code YES if there is persistent fear of an object, activity, or situation which the subject tends to avoid or else endures with intense anxiety.	0	1	U	0	1	U	0	1	U

	AGORAPHOBIC			SOCIAL			SIMPLE		
	NO	YES	UNK	NO	YES	UNK	NO	YES	UNK
32. *Because of (Feared object/ situation), was there a difference in your social life or in how you managed your work, school, or household tasks?*	0	1	U	0	1	U	0	1	U
(IF YES:) *Specify:*									
33. INTERVIEWER: For Social Phobia: Code YES if the fear is unrelated to a pre-existing Axis I or Axis III disorder [e.g., stuttering, trembling (Parkinson's), or exhibiting abnormal eating behavior (Anorexia Nervosa or Bulimia Nervosa)]. For Simple Phobia: Code YES if fear is unrelated to Obsessive Compulsive Disorder or Post Traumatic Stress Disorder.	N/A			0	1	U	0	1	U
34. *Did you seek help from anyone, like a doctor or other professional?*	0	1	U	0	1	U	0	1	U
35. *Did you take any medications?*	0	1	U	0	1	U	0	1	U
(IF YES:) *Specify:*									
36. *Did you ever have this problem at some time other than two months before or after having* (Depression/ Psychosis)*?*	0	1	U	0	1	U	0	1	U
	ONS AGE			ONS AGE			ONS AGE		
37. *How old were you the <u>first</u> time you had this problem?*									
	REC AGE			REC AGE			REC AGE		
38. *How old were you the <u>last</u> time you had this problem?*									

Separation Anxiety Disorder

Interviewer: The essential feature of separation anxiety disorder is excessive and unrealistic distress upon separation from the primary attachment figure marked by excessive fear of something happening to the attachment figure or to the child. Although such fears are normal at some ages, the fear here is in considerable excess of the age-appropriate norm.

	NO	YES
As a child, was there ever a time when you had a lot of worries about parents and were upset when you were away from them?	0	1
Did you worry or dream about bad things happening to them?	0	1

SKIP TO NEXT SECTION ←

If reasonable response skip to next section.

		NOT AT ALL	OCCASIONALLY	>FREQUENTLY	AGES
1.a	*Persistent reluctance/refusal to go to school to stay with attachment figure or at home.* - *As a child did you have any difficulty going to school?* - *Did you ever refuse to go to school?*	0	1	2	____
1.b	*Complaints of physical symptoms on school days.* - *Did you have physical problems such as stomach aches or headaches so that you couldn't go to school or that you were sent home from school?* - *Was there always something to explain the physical symptoms?*	0	1	2	____
1.c	*Repeated nightmares involving theme of separation.* - *Did you ever have nightmares about something bad happening to your (mother) or to you so that you could never see her again?*	0	1	2	____
1.d	*Persistent reluctance/refusal to go to sleep without being next to a major attachment figure or to sleep when away from home.* - *Did you ever insist that someone stay with you while you fell asleep or sleep with you?* - *Were you ever reluctant to sleep away from home because it upset you?* - *Did you get very homesick when you were away from home?*	0	1	2	____
1.e	*Unrealistic worry about harm to attachment figures or fear they will leave and not return.* - *When you were a child, did you worry a lot about bad things happening to your (mother)?* - *Did you worry that she might leave and not return or be killed?*	0	1	2	____
1.f	*Unrealistic worry that some event will separate the child from a major attachment figure.* - *When you were a child, did you worry about being lost, kidnapped, or being killed?*	0	1	2	____
1.g	*Persistent avoidance of being alone including clinging or shadowing an attachment figure.* - *When you were a child, did you try very hard not to have to be alone?* - *Did you follow your mother around the house, or did you get upset if you couldn't be with her?*	0	1	2	____
1.h	*Recurrent signs of excessive distress when anticipating separation from attachment figure.* - *How would you react when your parents were about to leave the house?* - *Would you ever plead with them not to leave or have temper tantrums?*	0	1	2	____
1.i	*Recurrent signs of excessive distress when separated from home or attachment figure.* - *Did you get upset or feel very sad when you were away from home?* - *Would you want to go home right away or feel so sad that you couldn't have fun?*	0	1	2	____

2. *At least 3 of 1.a-1.i rated '2' present during the same two-week period.* [0=NO] 1=YES

SKIP TO Over-anxious Disorder ←

Age of onset of separation anxiety disorder. ☐☐

Age at which separation anxiety disorder most recently present. ☐☐

Over-Anxious Disorder

Interviewer: *The essential feature of over-anxious disorder is excessive and unrealistic anxiety or worry for a period of six months or longer. Children with this disorder tend to be extremely self-conscious, to worry about future events or about meeting expectations, and to be concerned about the discomforts or dangers of a variety of situations. Such children are frequently worried and greatly concerned about their competence and about being judged negatively.*

	NO	YES
Now I am going to ask you about your childhood and early adolescence before the age of 18.		
When you were a child, were you nervous, uptight, unable to relax?	0	1
Did you tend to worry a lot?	0	1

Skip to Separation-Anxiety Disorder ←

Were you especially fearful in certain situations?
DESCRIBE _____

INTERVIEWER: *CHECK THE BOX AND SKIP TO THE NEXT SECTION IF THE FEAR WAS A REASONABLE RESPONSE.* ☐

		NOT AT ALL	OCCASIONALLY	FREQUENTLY	Age
1.a	*Excessive or unrealistic worry about future events.* *- Did you worry a lot about the future?*	0	1	2	___
1.b	*Excessive or unrealistic worry about past behaviour.* *- Did you worry about things you had done or about how well you had behaved?*	0	1	2	___
1.c	*Excessive or unrealistic concern about competence in one or more areas.* *- Did you worry a lot about how well you had done things, like in school, at sports, or socially?*	0	1	2	___
1.d	*Somatic complaints with no physical basis.* *- Did you have headaches, stomach aches? What a doctor say these were due to?*	0	1	2	___
1.e	*Shame, embarrassment, or marked self-consciousness* *- Did you feel easily ashamed or embarrassed? Did you worry if people like you?*	0	1	2	___
1.f	*Excessive need for reassurance* *- Were you wishing to be told you were OK or that you did things OK?* *- Or to be complemented?*	0	1	2	___
1.g	*Marked feelings of tension or inability to relax.* *- Was it hard for you to relax?* *- Did you feel like you were on pins and needles all the time?*	0	1	2	___

2.	*At least 4 items of1.a-1.g are rated '2' during the same six month period.*	0=NO	1=YES
3.	*If another anxietydisorder is present (eg, separation anxiety disorder, phobic disorder, or obsessive compulsive disorder), the focus of the symptoms above are not limited to it.*	0=NO	1=YES

Skip to Anti-social Personality ←

Age of onset of Overanxious Disorder. ☐☐

Age at which Overanxious Disorder most recently occurred. ☐☐

-8.- ANTISOCIAL PERSONALITY

Now I would like to ask you some questions about when you were younger.

		NO	YES	AGES
1.	*Before you were 15 years old...*			
1.a)	*did you often skip school?*	0	1	____
1.b)	*did you run away from home overnight more than once or did you run away from home without returning?*	0	1	____
1.c)	*did you often start physical fights?*	0	1	____
1.d)	*did you more than once use a weapon like a club, gun, or knife in a fight?*	0	1	____
1.e)	*did you more than once steal things or did you more than once forge anyone's signature on a check or credit card?*	0	1	____
1.f)	*were you often mean to animals including pets or did you ever hurt an animal on purpose?*	0	1	____
1.g)	*did you physically hurt another person on purpose* (other than in a fight)?	0	1	____
1.h)	*did you ever set fires when you were not supposed to?*	0	1	____
1.i)	*did you ever destroy someone's property on purpose* (other than fire setting)?	0	1	____
1.j)	*did you often tell lies?*	0	1	____

(IF YES:) *Why did you tell a lot of lies?*

_____

INTERVIEWER: Code NO if subject lied to avoid physical or sexual abuse.

IF ALL NO, END OF QUESTIONS ASKED OF SUBJECT--CODE Q.2 AS 00 AND SKIP TO GAS (PAGE 124). <

1.k)	*did you ever forde someone to have sex with you?*	0	1	____
1.l)	*did you ever take money or property from someone else by threatening them or using force, like snatching a purse or robbing someone?*	0	1	____

2. INTERVIEWER: Record the number of positive symptoms in Q.1. SX [ ][ ]

IF LESS THAN THREE POSITIVE SYMPTOMS, at the same time END OF QUESTIONS ASKED OF SUBJECT--SKIP TO GAS (PAGE 124) <

3. *How old were you the first time you* (list positive symptoms in Q.1.)? ONS AGE [ ][ ]

INTERVIEWER: For Q.4-15 do not count as positive, items that are solely related to alcohol and/or drug abuse. For subjects with a history of alcohol/drug abuse, use the following probe:
"Was this (Behavior) always due to your use of alcohol/drugs?"

Now I am going to ask you questions about yourself after the age of 15.

		NO	YES
4.	*In the last five years, have you been unemployed for six months or more, other than when you were in school, sick, on strike, laid off, a full-time housewife, retired, or in jail?*	0	1
5.	*When you were working, were you often absent from work when you were not ill or did you repeatedly miss work because you did not want to go?*	0	1
	INTERVIEWER: Code NO if absence due to illness in family.		
6.	*Since you were 15, have you quit three or more jobs without having another job lined up?*	0	1
7.	*Since you were 15, have you repeatedly done things that you could have been arrested for like stealing, or engaging in illegal occupations such as selling drugs or stolen goods, destroying property, or harassing others?*	0	1
8.	*Since you were 15, have you often thrown things, hit or physically attacked anyone (including your wife/husband, partner, or children)?*	0	1
9.	*Since you were 15, have you often failed to pay back debts that you owed like credit card charges or loans, or have you failed to take care of other financial responsibilities like child support or providing support for other dependents?*	0	1
10.	*Since you were 15, have you ever travelled from place to place without knowing where you were going to stay or work or have you had no regular place to live for a month or more?*	0	1
11.	*Since you were 15, have you frequently lied, used an alias, or conned others for personal profit or pleasure?*	0	1
12.	*Since you were 15, have you received three or more speeding tickets or have you often driven while intoxicated?*	0	1

INTERVIEWER: IF SUBJECT HAS NEVER BEEN RESPONSIBLE FOR CHILDREN, SKIP TO Q.14.

		NO	YES
13.	*Since you were 15, has anyone ever said that you were not taking proper care of a child of yours (or a child you were responsible for) like...*		
	13.a) *not giving the child enough food?*	0	1
	13.b) *not keeping the child clean resulting in his/her illness?*	0	1
	13.c) *not getting medical care when the child was seriously ill?*	0	1
	13.d) *leaving the child with neighbors because you were not able to take care of the child at home? (except for babysitting)*	0	1
	13.e) *not arranging for anyone to take care of the child when you were away?*	0	1
	13.f) *running out of money to take care of the child more than once because you spent the money on yourself?*	0	1
14.	*Since you were 15, have you ever been faithful to one person in a romantic or love relationship for one year or longer; that is, you did not have an affair or any one-night stands during that time?*		
	INTERVIEWER: Code YES (for positive symptom) if subject has never sustained a totally monogamous relationship for more than one year.	0	1
15.	*Did you feel it was okay for you to have stolen, hurt, hit, destroyed, or* (List other antisocial acts from Q.7-12)?	0	1

		REC AGE
16.	*You said that you* (Review positive symptoms in Q.4-15). *How old were you the <u>last</u> time you did any of these things?*	☐☐

Contact Method

Were you happy with the method by which you were contacted to participate in this study? 0=NO 1=YES

Sexual Abuse

The next question is about a difficult topic, sexual abuse. When it has happened, some women are OK to talk about it with us and some women choose not to.

When you were under 16, were you ever physically or psychologically forced by anyone to engage in any unwanted sexual activity, such as unwanted sexual touching of your body or sexual intercourse?

0 = No, definitely
1 = Yes, perhaps
2 = Yes, definitely

☐

INTERVIEWER: *IF 1 or 2, DESCRIBE. Note ages, perpetrator, and what happened. If had an eating disorder, ask how abuse related to the eating disorder.*

Causes & Recovery: the Person's Perspective

INTERVIEWER: *Complete for anyone meeting lifetime criteria for AN, BN, or EDNOS.*

You told me earlier that you have had problems with eating, shape, or weight. In thinking back over it, what do you believe caused this?

What factors made these problems worse?

(ASK UNLESS NO SIGNIFICANT PERIOD OF RECOVERY)
You also mentioned that these problems improved at some time(s). What contributed to this?

I. INTERVIEWER'S RELIABILITY ASSESSMENT

INTERVIEWER: Indicate how reliable you think the information provided by the subject is in the following areas.

	GOOD	FAIR	UNRELIABLE
1. SOMATIZATION	1	2	3
2. MAJOR DEPRESSION	1	2	3
3. MANIA	1	2	3
4. ALCOHOL ABUSE	1	2	3
5. DRUG ABUSE	1	2	3
6. PSYCHOSIS	1	2	3
7. ANXIETY DISORDERS	1	2	3
8. EATING DISORDERS	1	2	3
9. ANTISOCIAL PERSONALITY	1	2	3
10. OVERALL RELIABILITY	1	2	3

J. NARRATIVE SUMMARY

VERSION 1.0
14-NOV-91

E. MEDICAL RECORDS INFORMATION

SUBJECT ID: [ ][ ]-[ ][ ][ ][ ][ ] SUBJECT NAME: _____ _____ _____
First MI Last

DATE OF BIRTH: [ ][ ]-[ ][ ][ ]-[ ][ ]
D D M O N Y Y

PHYSICIAN NAME	HOSPITAL/CLINIC NAME	CITY	STATE	TREATMENT DATES	CONDITION

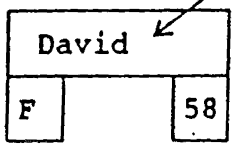
Appendix F:

Family tree for family history interview.

FAMILY TREE

I.D.NO: _____ **NAME:** _____

Complete, as in example: Birth Order → 2 Christian Name



Relationship to subject:
F(ull/biological)
H(alf)
A(dopted/step)

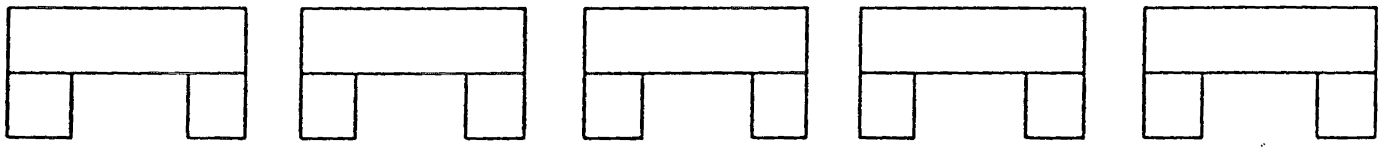
- Age current, if alive; else, age at death)

(Note: Write "subject" in appropriate box. If number exceeds the space available, write over the page.)

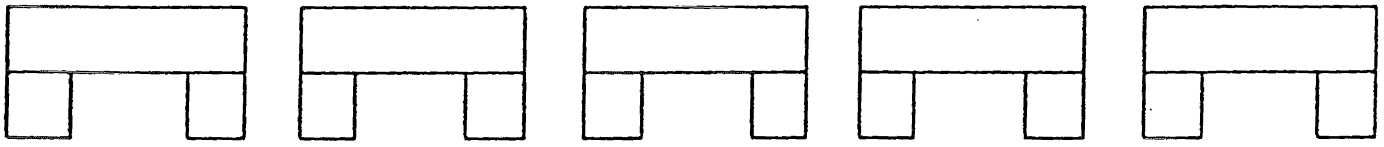
Section One - Parents:

Section Two - Siblings: (in birth order)

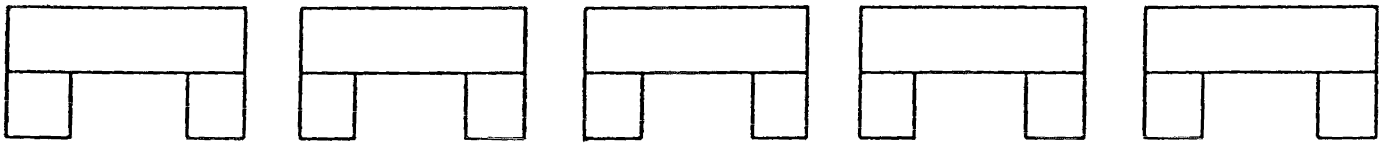
1 2 3 4 5



6 7 8 9 10

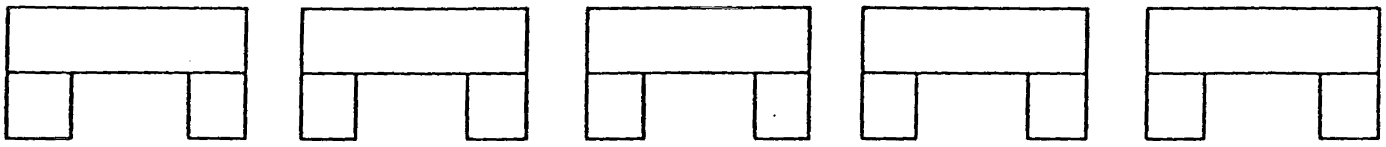


11 12 13 14 15

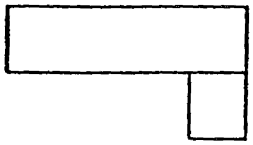


Section Three - Subject's Children: (if over 15 years of age)

1 2 3 4 5



Section Four - Current Spouse/Partner: (together at least 6 mths)



Appendix G:

Family history form for family history interview.

Family History Form

INTERVIEWER: *Complete this form for each first-degree relative over the age of 15 and partner of more than six months. (ie, biological parents, FULL siblings, and children; do not do for adopted or half-relatives.)*

First name _____

Gender 0=Male 1=Female

Relation 0=Parent 1=Sibling 2=Child 3=Spouse

Is relative alive? 0=NO 1=YES

(IF DEAD, CAUSE OF DEATH) 0=Suicide 1=Other _____

(IF DEAD, YEAR OF DEATH) 19☐☐

What was his/her height? _____☐.☐☐ meters

What was his/her highest weight? _____☐☐☐ kilograms

Was hs/she preoccupied or over-concerned with body shape, weight, or dieting? 0=NO 1=YES

Was he/she obese? 0=NO 1=YES

MD: Was there ever have a period where he/she was feeling down, sad, or tearful nearly every day for at least two weeks?

(IF YES) Probe for associated symptoms. Tick positive items.

Depressed mood or irritability
Loss interest or pleasure
Loss of energy
Weight or appetite change
Worthlessness or excessive guilt
Sleep disturbance
Poor thinking, concentrate or indecision
Motor agitation or retardation
Recurrent thoughts of death or suicide

0 = No such period

1 = Possible or subthreshold (<5)

2 = Definite MD episode

Alcohol/Drugs: Has he/she ever had problems with alcohol or drank more than he/she should?

(IF YES) Probe for associated symptoms. Tick positive items.

Larger amounts or longer period
Use despite complications or hazardous
Cut down or control use
Tolerance
Great deal of time spent
Withdrawal symptoms
Use interfering with role function
Use to relieve withdrawal symptoms
Gave up activities for use

(SPECIFY DRUGS _____). CODE TYPE.

0 = No

1 = Possible abuse or dependence

2 = Alcohol or drug abuse (underlined)

3 = Alcohol or drug dependence (≥3)

1=Drug 2=Alcohol 3=Both

AN: Did he/she ever weighed much less than he/she should have?

(IF YES) Probe for associated symptoms. Tick positive items.

Weight <85%
Amenorrhea for 3 cycles (not on OCP)
Fear fatness
Body image disturbance

0 = No AN

1 = Possible or subthreshold AN

2 = Definite AN

BN: Did he/she ever have eating binges, where he/she ate a large amount of food in a short period of time?

(IF YES) Probe for associated symptoms. Tick positive items.

Objective binges, 2/week for 3 months
Regular purging/compensatory
Preoccupation with shape and weight

0 = No BN

1 = Possible or subthreshold BN

2 = Definite BN

EDNOS: (IF NO DEFINITE AN OR BN. CODE FROM THE ABOVE.

0 = No EDNOS

2 = Definite EDNOS

Appendix H:

Parental Bonding Instrument.

PBI

ID# ☐☐☐ 1-3

This section lists various attitudes and behaviours of parents.

Questions 1 to 25 apply specifically to your **MOTHER**
Questions 26 to 50 apply specifically to your **FATHER**.

If these questions are not applicable to one or both of your parents, please note the reasons why.

As you remember your MOTHER in your first 16 years of life, would you place a 1-4 in the box next to each question.

1 = Very Like 3 = Moderately Unlike
2 = Moderately Like 4 = Very Unlike

1. She spoke to me with a warm and friendly voice . . . . . ☐ 4
2. She did not help me as much as I needed . . . . . ☐
3. She let me do those things I liked doing . . . . . ☐
4. She seemed emotionally cold to me . . . . . ☐
5. She appeared to understand my problems and worries . . . . . ☐
6. She was affectionate to me . . . . . ☐
7. She liked me to make my own decisions . . . . . ☐
8. She did not want me to grow up . . . . . ☐
9. She tried to control everything I did . . . . . ☐
10. She invaded my privacy . . . . . ☐
11. She enjoyed talking things over with me . . . . . ☐ 14

1 = Very Like 3 = Moderately Unlike
2 = Moderately Like 4 = Very Unlike

12. She frequently smiled at me . . . . . ☐ 15
13. She tended to baby me . . . . . ☐
14. She did not seem to understand what I needed or wanted . . . . . ☐
15. She let me decide things for myself . . . . . ☐
16. She made me feel I wasn't wanted . . . . . ☐
17. She could make me feel better when I was upset . . . . . ☐
18. She did not talk with me very much . . . . . ☐
19. She tried to make me dependent on her . . . . . ☐
20. She felt I could not look after myself unless she was around . . . . . ☐
21. She gave me as much freedom as I wanted . . . . . ☐
22. She let me go out as often as I wanted . . . . . ☐
23. She was over protective of me . . . . . ☐
24. She did not praise me . . . . . ☐
25. She let me dress in any way I pleased . . . . . ☐ 28

1 = Very Like 3 = Moderately Unlike
2 = Moderately Like 4 = Very Unlike

As you remember your FATHER in your first 16 years of life, would you place a 1-4 in the space next to each question.

26. He spoke to me with a warm and friendly voice . . . . . [ ] 29

27. He did not help me as much as I needed . . . . . [ ]

28. He let me do those things I liked doing . . . . . [ ]

29. He seemed emotionally cold to me . . . . . [ ]

30. He appeared to understand my problems and worries . . . . . [ ]

31. He was affectionate to me . . . . . [ ]

32. He liked me to make my own decisions . . . . . [ ]

33. He did not want me to grow up . . . . . [ ]

34. He tried to control everything I did . . . . . [ ]

35. He invaded my privacy . . . . . [ ]

36. He enjoyed talking things over with me . . . . . [ ]

37. He frequently smiled at me . . . . . [ ]

38. He tended to baby me . . . . . [ ]

39. He did not seem to understand what I needed or wanted . . . . . [ ]

40. He let me decide things for myself . . . . . [ ]

41. He made me feel I wasn't wanted. . . . . [ ]

42. He could make me feel better when I was upset . . . . . [ ] 45

1 = Very Like 3 = Moderately Unlike
2 = Moderately Like 4 = Very Unlike

43. He did not talk with me very much . . . . . ☐ 46

44. He tried to make me dependent on him . . . . . ☐

45. He felt I could not look after myself unless he was around . . . . . ☐

46. He gave me as much freedom as I wanted . . . . . ☐

47. He let me go out as often as I wanted. . . . . ☐

48. He was over protective of me . . . . . ☐

49. He did not praise me . . . . . ☐

50. He let me dress in any way I pleased . . . . . ☐ 53

Appendix I:

Family Environment Scale.

FAMILY ENVIRONMENT SCALE

FORM R

Rudolf H. Moos

Instructions

There are 90 statements in this booklet. They are statements about families. You are to decide which of these statements are true of your family and which are false. Make all your marks on the separate answer sheet. If you think the statement is *True* or mostly *True* of your family, make an X in the box labeled T (true). If you think the statement is *False* or mostly *False* of your family, make an X in the box labeled F (false).

You may feel that some of the statements are true for some family members and false for others. Mark T if the statement is *true* for most members. Mark F if the statement is *false* for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to *you*. So *do not* try to figure out how other members see your family, but *do* give us your general impression of your family for each statement.

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1. Family members really help and support one another.
2. Family members often keep their feelings to themselves.
3. We fight a lot in our family.
4. We don't do things on our own very often in our family.
5. We feel it is important to be the best at whatever you do.
6. We often talk about political and social problems.
7. We spend most weekends and evenings at home.
8. Family members attend church, synagogue, or Sunday School fairly often.
9. Activities in our family are pretty carefully planned.
10. Family members are rarely ordered around.
11. We often seem to be killing time at home.
12. We say anything we want to around home.
13. Family members rarely become openly angry.
14. In our family, we are strongly encouraged to be independent.
15. Getting ahead in life is very important in our family.
16. We rarely go to lectures, plays or concerts.
17. Friends often come over for dinner or to visit.
18. We don't say prayers in our family.
19. We are generally very neat and orderly.
20. There are very few rules to follow in our family.
21. We put a lot of energy into what we do at home.
22. It's hard to "blow off steam" at home without upsetting somebody.
23. Family members sometimes get so angry they throw things.
24. We think things out for ourselves in our family.
25. How much money a person makes is not very important to us.
26. Learning about new and different things is very important in our family.
27. Nobody in our family is active in sports, Little League, bowling, etc.
28. We often talk about the religious meaning of Christmas, Passover, or other holidays.
29. It's often hard to find things when you need them in our household.
30. There is one family member who makes most of the decisions.
31. There is a feeling of togetherness in our family.
32. We tell each other about our personal problems.
33. Family members hardly ever lose their tempers.
34. We come and go as we want to in our family.
35. We believe in competition and "may the best man win."

36. We are not that interested in cultural activities.
37. We often go to movies, sports events, camping, etc.
38. We don't believe in heaven or hell.
39. Being on time is very important in our family.
40. There are set ways of doing things at home.
41. We rarely volunteer when something has to be done at home.
42. If we feel like doing something on the spur of the moment we often just pick up and go.
43. Family members often criticize each other.
44. There is very little privacy in our family.
45. We always strive to do things just a little better the next time.
46. We rarely have intellectual discussions.
47. Everyone in our family has a hobby or two.
48. Family members have strict ideas about what is right and wrong.
49. People change their minds often in our family.
50. There is a strong emphasis on following rules in our family.
51. Family members really back each other up.
52. Someone usually gets upset if you complain in our family.
53. Family members sometimes hit each other.
54. Family members almost always rely on themselves when a problem comes up.
55. Family members rarely worry about job promotions, school grades, etc.
56. Someone in our family plays a musical instrument.
57. Family members are not very involved in recreational activities outside work or school.
58. We believe there are some things you just have to take on faith.
59. Family members make sure their rooms are neat.
60. Everyone has an equal say in family decisions.
61. There is very little group spirit in our family.
62. Money and paying bills is openly talked about in our family.
63. If there's a disagreement in our family, we try hard to smooth things over and keep the peace.
64. Family members strongly encourage each other to stand up for their rights.
65. In our family, we don't try that hard to succeed.
66. Family members often go to the library.
67. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).
68. In our family each person has different ideas about what is right and wrong.
69. Each person's duties are clearly defined in our family.
70. We can do whatever we want to in our family.
71. We really get along well with each other.
72. We are usually careful about what we say to each other.
73. Family members often try to one-up or out-do each other.
74. It's hard to be by yourself without hurting someone's feelings in our household.
75. "Work before play" is the rule in our family.
76. Watching T.V. is more important than reading in our family.
77. Family members go out a lot.
78. The Bible is a very important book in our home.
79. Money is not handled very carefully in our family.
80. Rules are pretty inflexible in our household.
81. There is plenty of time and attention for everyone in our family.
82. There are a lot of spontaneous discussions in our family.
83. In our family, we believe you don't ever get anywhere by raising your voice.
84. We are not really encouraged to speak up for ourselves in our family.
85. Family members are often compared with others as to how well they are doing at work or school.
86. Family members really like music, art and literature.
87. Our main form of entertainment is watching T.V. or listening to the radio.
88. Family members believe that if you sin you will be punished.
89. Dishes are usually done immediately after eating.
90. You can't get away with much in our family.

Appendix J:

Rosenberg Self-esteem Scale.

RSEQ

ID# ☐☐☐ 1-3

SELF ESTEEM

Self esteem doesn't mean conceit or being very conscious of your own importance or presence. It simply means valuing yourself in the way that you value others: considering yourself worthwhile, recognising that you are a unique individual and that you count just as much as anybody else.

Please read each statement carefully and place in the square the answer which represents your degree of agreement with each statement.

1 = STRONGLY AGREE
2 = AGREE
3 = DISAGREE
4 = STRONGLY DISAGREE

---

1. On the whole I am satisfied with myself ..... ☐
2. At times I think I am no good at all ..... ☐
3. I feel that I have a number of good qualities ..... ☐
4. I am able to do things as well as most people..... ☐
5. I feel I do not have much to be proud of ..... ☐
6. I certainly feel useless at times ..... ☐
7. I feel that I'm a person of worth, at least on an equal plane with others ..... ☐
8. I wish I could have more respect for myself ..... ☐
9. All in all, I am inclined to feel that I am a failure ..... ☐
10. I take a positive attitude towards myself ..... ☐ 13